Effects of Corporate Governance on Intellectual Capital Disclosure: An Analysis of Indian Companies

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Abstract

This paper empirically explores the critical connection between intellectual capital disclosure and corporate governance variables, while having firm-specific control variables, for a sample of 137 Indian listed firms. Intellectual capital disclosure is recorded by a self-developed index score used on the annual reports of the sample companies, along with an attempt to capture the qualitative aspect of the intellectual capital disclosure in the form of semantic properties underpinned by Time Expectation theory and the overall word count of intellectual capital in the annual reports. The analysis is further widened by analyzing individually the corporate governance factors with all the three forms of Intellectual capital (Internal, External and Human). Most of the corporate governance variables within the analysis is associated with the disclosure practices of Intellectual capital be it quantitative or qualitative. Thus, this paper attempts to extend the previous literatures with a specialized case of an emerging economy along with contributing towards the agency theory by establishing the links between corporate governance and disclosure practices.

1. Introduction

'The ability of organizations to cope, survive, grow, and otherwise attain and maintain business successes is related to their abilities to use various ``capitals'' in order to create and leverage value, and to accomplish their missions, visions and especially financial goals' (Keenan and Aggestam 2001). The growth in interest surrounding knowledge management and intellectual capital (IC) has occurred proportionally with the rise of implicit corporations and a prospering service industry (Guthrie and Petty, 1999). The role of Intellectual capital, as an unchallengeable resource (Hart and Moore, 1994), has become very crucial in managing the firm in such environments where the source of competitive advantage is strongly based on knowledge and intangible resources (Nahapiet and Ghoshal, 1998). Authors, such as Edvinsson (1997), Sveiby (1997) and Lynn (1998) emphasized the importance of IC, which they consider the main source of value creation in the new knowledge-based economy.

The purpose of this paper is to reveal the influence of Corporate Governance on Intellectual Capital Disclosures in annual reports of Indian Corporate firms. In recent years, the OECD and securities regulators in many countries have considered corporate governance and corporate disclosure as inseparable issues for investor protection and for the efficiency of capital markets (Cadbury Committee Report, 1992; OECD, 1999; Blue Ribbon Report, 2000).

Corporate governance is a framework of legal, institutional, and cultural factors that plays a major role in influencing model that stakeholders make effort on managerial decision-making (Weimer and Pape, 1999). Intellectual capital is the ``knowledge and knowing capability of a social collectivity, such as an organization, intellectual community, or professional practice" (Nahapiet and Ghoshal, 1998:245). Corporate governance uses financial, physical-plant, and intellectual capital to create and leverage value. Intellectual Capital is defined as knowledge that can be converted into value (Edvinsson and Sullivan, 1996, p. 358). One of the rigorous definitions is that offered by the Organization for Economic Co-operation and Development (1999) which describes IC as "the economic value of two categories of intangible assets of a company: organizational ("structural"') capital; and Human capital. Intellectual Capital includes intellectual assets that can be converted into revenues (Sullivan 1998). Intellectual capital refers to and includes relatively intangible and/or hidden assets of enterprises that are or can be leveraged to create value for the stakeholders of the organizations (Keenan and Aggestam, 2001).

There are various studies providing Research on IC disclosure, and has grown exponentially in the past two decades (Garcı´a-Meca et al., 2005). Edvinsson and Malone (1997) provided the schema of IC in the form of Skandia Value Scheme wherein it was classified as Human capital and Structural capital. Sveiby (1997, pp. 10–12) offered a framework that separates intellectual capital into three classes: human capital, internal structure and external structure. All forms of IC that is provided by the firms through disclosures are important from investor's point of view to make an optimal decision with respect to resource allocation efficiency within the market.

Increasing competition, new business sectors and technological developments have led to the decreasing relevance of financial statements and the increasing relevance of narrative reporting (Lev and Zarowin, 1999; Breton and Taffler, 2001). The capital market is requesting more reliable information regarding knowledge resources in a company, such as risk factors, strategic direction, managerial qualities, innovatory skills, experience, and integrity. These variables are the key drivers of value creation. Despite the growing importance of intellectual capital, users of financial statements have an incomplete picture of them due to identification, recognition and measurement problems (Garcia- Meca ; 2005).

Intangible intellectual capital transforms the relatively tangible financial and physical capitals into benefit and wealth (Keenan and Aggestham 2001). There is sufficient studies providing enough evidence Low (2000, p. 256) that the improvement in intangibles disclosure resulted in an increase in market value. The present system of accounting seriously fails to represent the intangibles and thus reflect the appropriate enterprise value and performance of the organization (Lev and Zarowin 1999, p. 354). Various reports and considerations of agencies around the world including governing bodies do support the argument over the accounting flaws of reporting the intangibles (FASB, 2001; CICA, 2002), (SEC, 2003). Usefulness of financial information has been deteriorating over the past 20 years (Lev, 1989; Lev and Zarowin, 1999). Current intellectual capital paradigms require corporate governance members to think holistically about all the intangible assets that can be used to create both change and stability for the firm and to create value through both intra-organizational and extra-organizational relationships (keenan and aggestham 2001).

The value creation of IC disclosure for the organization, and being termed as an important performance indicators and a strategy to gain competitive advantage has been widely documented (Firer and Williams, 2002; Williams, 2001; Ante, 2001; Stewart, 1997) and being practiced especially that in the developed nations. In addition, fewer studies have addressed the effect of the

corporate governance on IC disclosure (Li et al., 2008). Little is known about the development IC of and that of its determinants in the developing nation (kamath 2008, yi and davey 2010). This paper attempts to gain the insight about the voluntary Intellectual Capital disclosure in 137 annual reports of Indian Companies and assess the influence of Corporate Governance on those disclosures. Using various measures of IC frameworks developed in the previous studies (esp. Sveiby 1997) and the components of corporate governance and its sub categories in the light of various disclosure method. Considering Agency theory as the central theme, and the components of Corporate Governance to be the determinants of IC disclosure the study considers the corporate voluntary disclosure from Indian Perspective.

The remainder of this paper is organized as follows; Section two describes the previous studies and the related literatures, section three is composed of determinants of Intellectual capital and development of hypotheses. While, methodology is discussed in section four. Section five, is discussed with detailed result for the analysis and the paper is finally summarized and concluded in section six.

2. Literature Review

Intellectual capital is designated as an intangible assets that comprises brand name, customer information, technology, reputation and corporate culture that are of the utmost importance to an organizations reasonable potential (Low and Kalafut, 2002). With the swift expansion of the global economy, Intellectual Capital, which has the power to replace the primary resource of diverse industries and firms within, and is being perceived as a crucial factor for an organization's sustainability in the long term (Bontis, 2001). According to Low and Kalafut, (2002) IC consists three important spheres, to be classified into implicit knowledge and innovativeness of the employees, infrastructure of human capital, and external relationships. These resources are blended closely in every part of the organizations and are not necessarily to be seen always. They contribute companies an underlying tenet for economical lead and competitive success in the marketplace (e.g., Penrose, 1959).

The important consequence of these soft assets in organizing the complex structures and the various contingencies has surged the deficiency of the reporting system, and henceforth transforming the very essence of the Corporate Governance (CG) alliances (Rajan and Zingales, 1998) and that elucidates the obligation of the management. According to Darrough and Stoughton, (1990) disclosure is expensive considering it directly reflects the emergence of proprietary and litigation costs. The proprietary costs theory states that, costs related to disclosure could discourage the dissemination of information (Prencipe, 2004). If the count and the extent of rivals increase, disclosure becomes more expensive (Darrough and Stoughton 1990).

In the global economy considering the intricate nature of the firms and added the complex incentive system by establishing numerous intangible resources, that is also represented by a severity of information asymmetry, leads to the classic agency cost problem (Jensen and Meckling (1976)). According to Libskind (1996), business success in particular, which are termed as sustainable, is based on the company's intangible resources that comprises its complete organizational ability. Sullivan (2000) demonstrates by conducting a study based on 250 companies, that the symbolic institutional investor assign extensive consideration to non-financial performance indicators. Calibrating on this estimate, Sullivan concludes that investors take around 35 per cent of the investment decision after evaluating of non-financial data, such as the quality of a firm's intellectual capital.

Prior studies emphasize the alliance between corporate governance and voluntary disclosure (e.g. Forker, 1992; McKinnon and Dalimunthe, 1993, Eng and Mak, 2003). There are studies that also indicates the reasoning of corporate governance in direction such as corporate culture, debt costs, auditing, transparency, profitability, and handling. (E.g. Healy and Palepu, 2001, Hannifa and Cooke, 2002; Millar et al. 2005). However, there is insufficient information for the impact of corporate governance on the disclosure of intangibles and particularly the intellectual capital.

Intellectual capital is very important towards the firm's sustainable success and competitive advantage of the corporation. Where once "hard" assets – property, plant and equipment – accounted for a big piece of a company's market value, today it is intangible assets that rule – things like innovation, brand development and training, (Low 2000, p. 253). It is gradually perceived as the most crucial aspect to generate and preserve competitive advantage for organizations (Li et al., 2008). According to Bontis et al. (2000), Intellectual Capital has an important and absolute affiliation with organizational accomplishment irrespective of industry. While Klein, (1998), has called, the term "intellectual capital" have been included to the financial and physical capitals of enterprises.

Information asymmetry and opportunistic behavior can be drastically curtailed due to the better-concentrated observing platform provided by Intellectual capital disclosure (Li et al., 2008). The same way as it function with the adoption of various Corporate Governance practices within the organization like role duality, board composition, Audit committees that are purely appointed with the purpose to diminish the agency problem.

Studies on Intellectual Capital disclosure has increased significantly in the last two decades (Garcı´a-Meca et al., 2005). Petty and Guthrie (2000) cornered the Intellectual Capital literature review, specifically with respect to its measurement and reporting. Bornemann et al. (1999) and The Danish Trade and Industry Development Council (1997) studied the indicators of Intellectual Capital. Tan et al. (2008) contributed a productive summarization on the stages of development of Intellectual Capital, its application towards the research in different cultures, and to overall business and management issues. Brennan and Connell (2000) provided a summary of 14 empirical analyses on various behavior of Intellectual Capital.

Most of these studies were carried out during the late 1990s. Studies covering various aspects such as developing an Intellectual Capital framework and its indicators, measurement and its reporting. The foundational schema were constructed by a few researchers such as Kaplan and Norton (1992) who developed the balanced scorecard; Petrash (1996) who described the value platform; Sveiby (1997) who elaborated on the intangible asset monitor; Edvinsson and Malone (1997) who created the Skandia value scheme. Researchers such as Johanson et al. (1999), Canibano et al. (1999) and Miller et al. (1999) studied on measurement of Intellectual Capital.

According to Li et al., (2008), a series of the researches for the Intellectual Capital are cross-sectional and more country specific., for example, Australia (Guthrie and Petty, 2000), UK (Williams, 2001), Ireland (Brennan, 2001), Canada (Bontis, 2003), Italy (Bozzolan et al., 2003), Japan (Mavridis, 2004), Malaysia (Goh and Lim, 2004), Taiwan (Chen et al., 2005), Sri Lanka (Abeysekera and Guthrie, 2005), New Zealand (Wong and Gardner, 2005), Italy (Cerbioni and Parbonetti, 2006), Singapore (Tan et al., 2007), India (Kamath, 2007, 2008), New Zeland (Whiting and Miller, 2008), Spain (Oliveras et al., 2008),UK (li et al. 2008). These researches due to their characteristics of being specific provide understanding with respect to the level of Intellectual capital disclosure in the specific country throughout diverse industrial sectors. As evident even from the above summarization of the previous studies that the researches is mostly concentrated towards the developed economies and are subject to very limited focus towards the developing economies.

The results of these studies vary from country to country and there are number of factors that could be used to explain these situations. According to Ahmed and Courtis (1999, p. 36) who claimed that 'these inconclusive results could be due to differences in socio economic and political environments between countries, organizational structures, construction of the informational items in disclosure indices and sampling error'. Previous literatures have accentuated formulated definition, measurement (Stewart, 1997; Edvinsson & Malone, 1997; Youndt, Subramaniam, Snell, 2004; Juma & Payne, 2004), the impact of Intellectual Capital, and few of its aspects on firm performance (Youndt, Subramaniam, Snell & Golden, 1999; Youndt, Subramaniam & Snell, 2004). However, it is also argued that the 'failure to include corporate governance characteristics could account for the inconsistent results since corporate disclosure policies emanate from the board' (Gul and Leung, 2004, p. 355).

The literature regarding Intellectual Capital and its association with Corporate Governance is limited and inconclusive. However, a review of the current state of financial and external reporting research by Cerbioni and Parbonetti (2006) identified Intellectual Capital and its association with Corporate Governance research as being still in its infancy and a major area for further research. Investors are increasingly aware of the importance of company information not directly reflected in financial statements and so its determinants (Mavrinac and Boyle, 1996). Capital markets are looking for more fundamental information about expertise domain in an organization, such as managerial qualities, risk factors, experience, innovatory skills, integrity, and strategic direction (Eccles et al. 2001) especially, when faced with agency problems, information transparency, investor profits and asymmetrical information, (Li et al 2008).

While the effects of corporate governance characteristics on financial disclosure have received considerable research interest (Wild, 1996; Klein, 2002; Anderson et al., 2004; Beekes et al., 2004), we still have much to learn about the impact of corporate governance on voluntary disclosure of Intellectual Capital (Cerbioni and Parbonetti 2006; Abeysekera, 2007; Li et. al 2008). While several IC disclosure studies have been carried out in developed nations, there is a dearth of research on the IC disclosure practices of firms located in developing nations (Abeysekera, 2007). Previous studies mostly focuses on measuring the degree of Intellectual Capital information being disclosed in corporate annual reports, but there is little evidence that identify certain tendency deciding the variation across firms (Gracia et al 2010) especially when we are not focusing on corporate governance mechanisms rather than accounting reasons, moreover the scenario is even disappointing from developing country perspectives. Especially, when it comes to India, Intellectual capital is in the stage of infancy with other developing countries (Kamath 2008).

In cessation from prior literatures, we contemplate the feasible affiliation of earlier established governance structure with both the quantity and the quality of intellectual capital information voluntarily disclosed by organizations in various forms identified along with its outlook orientation. In particular, our sample consists of Indian companies publicly listed on the stock market. The flourishing implication of India in contributing towards the developing global economy makes it crucial to analyze various emerging factors as it may not only concern the research community as a whole to explore the similarities and differences in Intellectual Capital (Kamath 2008) and corporate governance with other countries in the globe but also add to the existing base of knowledge.

According to Booth (1998) a sole combined strategy to capture the Intellectual Capital measurement is pointless, but mostly, there exist three strategy used to measure intellectual capital (Brennan (2001)). The first methodology is to utilize and also being termed as the value-based measures by calculating the value of intellectual assets through the difference between the market

value and book value of the firm. The another strategy also known as “Skandia Navigator” refers to the methodology which identifies and quantifies the critical success factors in five areas of the organization (Brennan, 2001) mentioned as ; (1) financial; (2) client; (3) human; (4) processes; (5) renewal and development as a crucial factor of the intellectual capital system (Edvinson and Malone (1997)). Whereas, there is also a widely used approach known as the Intellectual Capital Index, wherein key measures of success of a single organization must be identified and weighted to provide a single summary index.

The study uses the content analyses approach in order to identify and assign appropriate measure towards the factor to conclude the overall Intellectual Capital of an organization under scrutiny. Wherein the term intellectual Capital is broadly classified into three categories of Internal Intellectual Capital, External Intellectual Capital and Human Capital. A content analysis of the 200 annual reports was carried out considering an annual report is a useful source of information about an organization. As companies not only reports what is important for the company to its shareholders and the public but also firms annual report is a tool through which a firm conveys its image to the public. Besides, the complete control of the discretionary disclosure of information in the annual report is with the management of the company. Of which after screening further 137 companies (Annual reports) were selected for further study. The content analysis involved reading the 2012-13 annual report of each company, incorporated in conformance with a selected framework of 43 attributes, as shown in Table 5.

We evaluate the composition of information as proxies for the quality of voluntary disclosure on intellectual capital and quantity for the various dimensions identified along with its outlook orientation (historical versus forward looking). In terms of practical implications, this study should be of interest to investment professionals, market participants as a whole, and regulators, we contribute to agency theory by indicating that corporate governance mechanisms and voluntary disclosure can be strategically used to diminish agency conflicts.

3. Determinants of IC disclosure and development of Hypotheses

Corporate governance is a framework and a mechanism that guarantees investors of the corporations get a return on their investments (Shleifer and Vishny, 1997). Corporate Governance has increasingly garnered attention due to the incorporation of different systems related to governance issues into the globalizing economy (Weimer and Pape, 1999). Both in the academic literature and the business press are increasingly receiving more and more attention with respect to designing corporate governance systems to improve firm transparency and to solve the information asymmetry problem arising from the separation between ownership and control (Garcia et. al 2010). According to Aggestam and Keenan (1999), the intellectual capital of the incorporations can be strengthened by mobilizing competent managers, executives and best board practices in corporate governance. A number of interrelated characteristics, which are extremely important to establish profound governance mechanism (Cerbioni and Parbonetti, 2006), forges a corporation’s governance system.

'The constructs of corporate governance and intellectual capital are connected and becomes apparent' (Keenan and Aggestam 2001). Earlier researches does not establish if the corporate governance and voluntary disclosure substitute or complement for accountability (Cerbioni and Parbonetti, 2006). Since disclosure is not free; (Cerbioni and Parbonetti, 2006), corporations may prefer to decrease the costs associated with information asymmetries by enhancing corporate governance instead of increasing the level of disclosure. Keenan and Aggestam (2001), Li et al., (2008), Akhtaruddin et al., (2009) and Clemente and Labat (2009) stated that efficient corporate governance mechanisms have impacts on significant intellectual capital management, including the

disclosure of information, considering the investors should be acquainted with respect to the core capability of the corporation especially with respect to its intellectual capital owned (Kavida and Sivakoumar, 2008), and thus, improving the transparency. Occupying various mechanism of internal control like separation of the roles of chairman and chief executive, and audit committees and non-executive directors, may improve monitoring quality in crucial decisions especially about the intellectual capital investment and performance (Keenan and Aggestam, 2001).

According to the agency theory, an organization will try to curtail the high agency cost by increasing the monitoring activity of its corporate governance and the amount of voluntary disclosure (Jensen and Meckling, 1976; Fama and Jensen, 1983). Agency theory provides a platform for associating disclosure management and corporate governance by considering both as mechanisms of accountability (Jensen and Meckling's (1976). Agency cost theory predicts that due to the prevailing information asymmetries, managers may select a set of decisions to maximize their own utility. While it is also argued through the agency theory that disclosure is the key fundamental mechanism to reduce the agency cost (Jensen and Meckling, 1976). Considering this arguments, corporate governance is seen as an important tool and mechanism that contributes through increased monitoring on users of fund i.e. the management of the organization like concealment and distortion.

An effective corporate governance reduces any chances of the management to be opportunist and work for their interests due to the existing information asymmetries, rather it may compel them to better disclose all the relevant information. On the other hand, the primary function of the voluntary disclosure is to reduce the information asymmetries. However, both corporate governance and voluntary disclosure (Cerbioni and Parbonetti, (2006)) are termed as mechanisms of accountability. As witnessed in the literature discussed, the disclosure of intellectual capital is beneficial in value creation process in the long run not for the investors in general. Voluntarily disclosing information about the Intellectual Capital, helps investors to mitigate the information asymmetry and take informed and better decisions. But a sound Corporate governance may play a crucial factor for controlling the behavioral issues that of the management and thus further ensuring the voluntary disclosure in general.

3.1.1.Board Composition

'The board is viewed as a market-induced institution, the ultimate internal monitor of the set of contracts called a firm, whose most important role is to scrutinize the highest decision makers within the firm' (Fama 1980, p.294). According to Fama (1980) outside directors were treated as mediator with the sole objective of securing that the board protects the shareholder's interest, in monitoring managerial decision making. Since the independent directors are encouraged to execute their opinion guidance so as to cultivate their reputational capital the boards consisting of larger number of independent directors maintain efficient grip over managerial decisions (Fama and Jensen (1983). According to Beasley (1996) there is a stronger direct effect with the embodiment of a greater percentage of Independent Directors on boards as it diminishes the chances of financial statement fraud. The greater proportion of independent board of directors creates an efficient control on board decisions and effects to better value creation for the organization (Bueno et al. (2004). Corporate delegations like Tread way Commission, 1987; Blue Ribbon Committee, 1999 have actualized that Independent Directors and various board committees comprising of independent directors will enhance the transparency within the organization.

There are quite number of literatures providing evidence to prove also the otherwise, that is the inclusion of Independent members of the board is adversely affecting the disclosure practices in general. According to Conyon and Peck (1998) the motivation to protect the shareholder interests may not be substantial for the independent directors considering they either do not hold shares or they hold a negligible amount of shares. According to Forker (1992), no statistically fundamental relationship exist between the proportion of independent directors and of disclosures regarding stock options. Conyon and He, (2004), states that independent directors may tend to form a cooperative alliance due to good relations with the top Management for their personal interest at the expense of the shareholder. While the presence of independent directors do not have any impact on the quality of imperative disclosure on stock options (Forker (1992)). Al-Moataz and Hussainey (2012) found a conflicting connection between corporate governance voluntary disclosures and board independence in Saudi Arabia. On the contrary, previous studies like Haniffa and Cooke (2005) gave evidence of greater percentage of independent directors on the board may be valuable to the organization and positively associated with the voluntary disclosures as the independent members bring networks, reputation, and far reaching experience. Based on these arguments and past literatures we also include the variable of independent directors and hypothesize that:

H1: *Ceteris paribus*, there exist a positive association between the level of voluntary intellectual capital disclosure and the composition of independent directors on the board.

3.1.3.Board of Directors Size

An important area of crafting the mechanism for Corporate Governance is to determine the perfect size of the board of directors. Considering numerous studies have been carried out with contradictory outcomes. At one end, there are studies that proves the positive association of the board size and the voluntary disclosures. Authors like Chaganti and Mahajan (1985) place confidence in the bigger board size as they term them to be worthy as they bring wider expertise and diverse experiences to the board decision making process. According to (Yermack, (1996) who stated bigger boards tends to add more experience from wider ranges in the board including financial reporting or other disclosure expertise.

There are also some literatures that remains inconclusive or do not find any effect through the board size towards organizations voluntary disclosures (Lakhal, 2005). While some studies even claims that the size of the board is negatively associated to the firm value (Fuerst and Kang (2000)) and hence often argued that slimmer boards will not be slowed down due to ritualistic complications and may ease and help firm for the smooth transitioning from one phase to another, and quick decision making thus enhancing firm performance. Members of bigger boards are more probable to be interested in conservative approach taking calculated decision mostly surrounding to sustainability and less excited to engage in strategic decision making including the decision of voluntary disclosures. Concluding on that it may be expected for the size of the boards to be having negative relationship with disclosure practices. Bigger board size may impact negatively on the overall of the board (Goodstein, Gautam, and Boeker (1994)). Studies also reported that there is a conflicting relationship amid size of the board and earnings management, indicating bigger board size may result in higher disclosure quality (Akhtaruddin et. al (2009)). Therefore, we may generalize that, organizations with bigger size of the boards might be more probable to voluntarily disclose more information in their annual reports and other forms of communication.

H2: *Ceteris paribus, there is a negative relation between Board of Directors size and quantity and quality of Intellectual Capital Disclosure.*

Role Duality

Fama and Jensen (1983) states that the important and crucial responsibility for the board of directors is to reduce agency costs due to the detachment of ownership and control. 'The board is not an effective device for decision control unless it limits the decision discretion of individual top managers' (Fama and Jensen (1983), p. 314), as according to Fama and Jensen (1983) CEO duality neglects the merit of separating decision management and control. According to Boyd (1994, p. 338) 'holding the highly symbolic position of board chair would provide the CEO with a wider power base and locus of control'. Despite previous studies repeatedly dispute in favor of the positive association amid the separation of decision management and control, while it should be more crucial to investigate if the separation does leads to better monitoring and higher amount of voluntary disclosure or increase in the value for the overall organization in general.

Not substantial differences in various financial performance were evidenced between organizations that experienced CEO duality and that did not, in a study carried by Berg and smith (1978). Many previous scientific studies did not find any substantial relationship between the role duality and firm performance (Ho & Wong, 2001; Cheng & Courtenay, 2006; Ghazali &Weetman, 2006). Studies even claim that organizations with role duality consistently outperform corporations with a CEO non-duality structure (Rechner and Dalton (1991)). However authors like Boyd (1995), validates the separation of the two positions ensuring the independency of the decision control and decision management since role duality has the gist of authority in the core of the structure. Substantial decision-making and managing authority due to the role duality held by a single person may limit the independency of the board and reduce the board's effective functioning and governance (Gul and Leung (2004)), impairing the quality of the firm's disclosure practices. Considering these findings with respect to the role duality as for CEO and Chairman, we hypothesize that:

H3: *ceteris paribus,* there is a negative association amid the level of intellectual capital disclosure and role duality.

3.3. Ownership structure – share concentration

3.3.1. Family Ownership

Previous studies have proved that promoters and the management of the family firms are more likely to involve in managerial intrusion at the cost of firm interest, leading to fragile accomplishment (Thomsen and Pedersen, (2000) ; Gomez-Mejia et al., (2001); Cronqvist and Nilsson (2003)). Cronqvist and Nilsson (2003) have confirmed a negative association amid the level of family control and the profitability in the form of return on assets (ROA) of Swedish listed firms used as sample.

Although there are studies that argues and maintains that when compared to various forms of ownership, family ownership have proved to be a value intensifying channel in the listed firms (Anderson and Reeb (2003), Maury (2006) and Barontini and Caprio (2006)). In the corporations which are owned by families, and the chairman of such organization maintains cordial and informal

relations with the prime shareholders there is sufficient evidence to prove that there is infringement at the expense of corporations interest (De Angelo and De Angelo (2000); Go´mez-Mejı´a et al. (2001))

H4: *Ceteris paribus*, Family ownership has negative relationship with disclosure of intellectual capital.

3.3.2. Institutional shareholding

Larger or institutional investors possess the right motivation and means to maintain its influence over the management and control its activities while retaining the power to initiate changes if required. According to Lang and McNichols, (1997), Institutional investors are competent and powerful to exert diagnosis over other's investments. Earlier studies have also provided sufficient evidence that the impact of institutional investor on firm valuation is mostly positive (McConnell and Servaes (1990)). Considering these findings, we are satisfied to believe that monitoring by institutional investors of the corporate may bring more concentration towards performance and reduce opportunistic behavior.

H5: *Ceteris paribus*, there exist a positive association between the presence of director's from institutional investors on the board and the level of Intellectual Capital Disclosure.

3.3.3. Ownership concentration

According to Jensen & Meckling (1976), Agency theory predicts corporations with diffused ownership structure is more likely to disclose better. However, since there is greater variations in the related interest of various groups involved, corporations with diffused ownership structure is more likely to have higher amount of agency conflict. The structure of the ownership and the system created to govern the organization may have impact on management's risk appetite and to act accordingly (Zahra, 1996).

According to Schipper, (1981), Disclosure can help curtailing the agency conflict as it reduces information asymmetry and monitoring difficulties experienced by diffuse owners. Previous studies have concluded a significant negative association amid ownership concentration and the level of Intellectual Capital Disclosure.

Considering these findings, we believe that there exist a negative relationship with the Ownership concentration and the Intellectual Capital Disclosure.

H6: *Ceteris paribus*, Ownership concentration has a negative relationship with disclosure of Intellectual Capital.

3.2. Board committee size and frequency of meetings

3.2.1 Internal Auditing Mechanism - number of meetings

Prior literatures have already established that audit committee is necessary to govern the behavior of the board, and its efficiency is more robust according to the independency of the audit committee (Menon and Williams (1994), Abbott et al. (2000), Klein (2002) and Xie et al. (2003)). Studies also

indicate that in order to effectively supervise the activity of the management, sufficient the audit committees as committees, which are dormant, may not be able to monitor management efficiently (Olson (1999)), must conduct number of meeting for the issues of high priority.

H7: *Ceteris Paribus, there exist a positive association amid the level of intellectual capital disclosure and frequency of audit committee meetings.*

Control variables

Empirical evidence have demonstrated that corporate governance structure is affected by the business surroundings (see, e.g., Boone et al. 2007; Linck et al. 2008; Coles et al. 2008; Lehn et al. 2009). For instance, an organization with more institutional investor operating in a volatile environment would benefit more from the presence of the institutional directors and independent directors on the board. Corporate governance is termed as a function of an organization's regulatory operational and cultural environment.

As knowledge creation, diffusion, and storage are inherently evolutionary in nature, the degree to which an organization develops its intellectual capital may vary with its age. Likewise, organizational size may influence the development and level of intellectual capital through increased access to resources and market power (Cerbioni and Parbonetti, 2007). The size of the firm is positively associated with discretionary disclosure practices of the firm (Meek et al. (1995)).

Accordingly, we control for both organizational age and size in our analyses. We also include two other control variables that we regard as exogenous determinants of corporate governance that is Growth opportunities and Return on Equity. The high-growth firms have a greater information asymmetry, and they bridge the information gap by discretionary disclosure to meet investor expectations (Cerbioni and Parbonetti, 2007).

4. Methodology

This study examines intellectual capital disclosure in corporate annual reports of Indian fully listed companies on the National Stock Exchange (NSE) for financial year-ends between March 2012 and February 2013. The firms chosen for the study are the top 100 firms (based on their market capitalization) from the BSE were chosen from several industry sectors containing high intellectual capital companies (IT, Food Production & Beverage, Telecommunications, Media & Publishing, Pharmaceuticals & Biotechnology, Banking & Insurance, and Business Services).

Intellectual capital disclosure (ICD) comprises of tangible and intangible information as well as a significant narratives that ensures the indicators are within a strategic structure (Bukh, 2003). The information plays a crucial role in reducing the information asymmetries that may result in a potential conflict of interest between managers and shareholders, who may prefer to abstain such information to enhance their interests (Cerbioni and Parbonetti, 2007). There may be number of frameworks or conceptual models to distinguish and record ICD. Mostly, in all the frameworks, human capital is a common component (Edvinsson & Malone, 1997; Stewart, 1997; Sveiby, 1997) that includes the organizational capabilities such as knowledge, abilities, and skills that inhabit in individuals. Internal Intellectual Capital also known as Structural capital typically comprise of organizational characteristics such as Communications systems, Research and Development, Intellectual Property, corporate culture, leadership, Technology, and structure.

Authors like Brooking (1996) termed a separate tier for intellectual property, by naming another category as the term 'infrastructure assets' to assess the organizational level. Another frequent

component of IC is External intellectual capital also known as Relational Capital (Edvinsson & Malone, 1997; Roos et al., 1998), usually defined as the relationships between an organization and its other stakeholders especially its customers and suppliers. This category is quiet adequate in the adaption and diffusion of Intellectual Capital as it leverages individual motivation, cooperation and communication.

Following Sveiby (1997) framework and several later studies (Guthrie and petty 2000, Cerbioni et al (2007), and Li et al 2011) we use a modified and detailed ICD checklist belonging to the three common categories discussed above: Human capital (HICD), Internal Structure (IICD) and External structure (EICD), capturing information in the forms of text, numerical and pictorial/graphical. We considered the research technique usually used in disclosure studies, known as the Information Disclosure Index. The information disclosure index includes 43 items classified into three categories discussed. Specifically those items were chosen considering that this method will help us to obtain objective results, as well as a significant sample size composing of various industries that exhibits the different behaviors of the variables in our study.

Petty and Guthrie (2000b) provide the following table (Table I) for comparing several of the main IC schemas.

Table I.
Frameworks for classifying intellectual capital reporting models

Developed by	Framework	Classification
Sveiby (1988; 1997)	The Intangible Asset Monitor	Internal structure External structure Competence of personnel
Kaplan and Norton (1992)	The Balanced Scorecard	Internal processes perspective Customer perspective Learning and growth perspective Financial perspective
	Classification of Resource	Competence Relational
	Classification of Resources	Competence Rational
Edvinsson and Malone (1997)	Skandia Value Scheme	Human capital Structural capital

Past researchers have analyzed with respect to the voluntary disclosure of Intellectual Capital in the annual reports only to address the specific measure of IC in terms of its presence or absence, and thus creating the disclosure index thus retaining only the Quantitative aspect of the IC Disclosure (Cerbioni and Parbonetti 2007). There are studies who attempted to capture the Qualitative part of ICD using indices of disclosure assigning the weight to each item disclosed or based on the type of measure (Botosan, 1997, Guthrie et al., 1999). In short giving a proxy for the information targeted with respect to the quality of disclosure (Gul and Leung, 2004). In the same vein many researchers have argued the importance of the quality of the Intellectual capital but had also confirmed weakness of the index method and so its difficulty to assess (Marston and Shrives, 1991; Botosan 1997). Qualitative content analysis goes beyond merely counting words to examining language intensely for classifying large amounts of text into an efficient number of categories that represent similar meanings (Weber, 1990).

Following existing studies (Garcı`a-Meca and Martı`nez, 2005; Cerbioni and Parbonetti 2007; Haniffa et. Al, 2007), we considered voluntary ICD as a multidimensional and complex concept. This paper attempts to cover both the quantity and the quality of disclosure. We drew on the time expectation of the information disclosed and on the content of information as proxies for the

quality. Time horizons (historical versus forward looking) having economic relationships and the governance aspects of intellectual capital are being utilized in order to look for more qualitative aspects of ICD. The Weimer-Pape taxonomy argues governance systems as being primarily concerned with either short-term or long-term economic relationships. Studying CG mechanism in various developed economies Weimer and Pape (1999:157) reports based on findings by Gelauff and Den Broeder (1996) that in such market-oriented governance systems unrestricted markets ensure rapid adjustment to changing circumstances and hence favor more short term results rather than the long term economic goals. In the same vein, studies constructively states that constant and rapid adjustments to changing market dynamics and its relationship in terms of its economics has created governance and management to be focused on the accomplishment of short-term rather than long-term results (Porter ,1992; Prodham, 1993). This very precisely indicates the crucial relationship between the time horizon of ICD and the associated Corporate Governance. Short term and long-term time horizons affect the use and management of component intellectual capitals differently as the time expectation explains.

As the Management is responsible for the ICD irrespective of the merits of either short-term or long-term outlooks, and hence the firm's existing intellectual capital needs to be deployed and disclosure. We also try uncovering the assistance received in doing so by the CG mechanism discussed here. This paper also explores this semantic property of the ICD of time orientation as being highlighted its importance in terms of time Expectation strategy being deployed by the Management. Specifically we also wanted to see the role played by Corporate Governance for it, as with other capitals (tangibles), CG is also responsible for directing and taking responsibility in the creation, deployment, and leveraging of existing and available intellectual capital. This methodology allowed building both a total score for a company and various scores for more specific aspects of its disclosure quantitatively and qualitatively. It was thus an attempt to increase the scope of the analysis of the ICD by considering various aspects classifying towards the Quantitative and Qualitative details.

To develop ICD index from the annual reports, we used content analysis, a method widely used in previous research on ICD (Guthrie et al., 2004; Garcia-Meca et al 2010). According to Krippendorff (1980) definition content analysis is a research methodology for making replicable and valid inferences from data to their context. Strategizing and developing components into which content units can be classified is an essential element of content analysis (Haniffa and Cooke, 2005). Content analysis attempts to study published information reliably, objectively and systematically (Krippendorf, 1980).

According to Kerlinger (1986) who defined content analysis as a research technique of examining communication in an objective, systematic and quantitative aspect for the objective of measuring variables. It is also termed as a research technique that exploits a set of agenda that make valid inferences from text and it is context-sensitive and so can proceed significant meanings of data (Weber (1985)). Although largely seen as a quantitative research technique, it can conclusively acquire qualitative content as well (Stempel, 1989). We developed an overall ICD index for each annual report as the sum of scores on each IC component.

The intellectual capital disclosure index ICDIj for each company is calculated based on the disclosure index score formula used in previous literatures (Haniffa et al, 2005; 2011) as follows:

$$ICDI_j = \frac{\sum_{i=1}^{n_j} X_{ij}}{n_j}$$

Where nj = number of items for jth firm, nj = 129 (i.e. 43 items in three formats), Xij = 1 if ith item disclosed, 0 if ith item not disclosed, so that $0 \leq ICDIj \leq 1$.

Sentences containing general assumptions, over emphasis or even repetition were coded as 0 to prevent firms to obtain a higher disclosure score while a concise report could have a lower score. Two researchers having expertise in content analysis created IC Indexes by frequency of occurrence in the annual report for every listed company under investigation, recording 1 for each component and 0 otherwise. The index creation by the two researchers given the benchmark for the degree of contentment as a measure of reliability, using Scott's p (>0.9).

Variable Data Collection Methods

The use of a dichotomous procedure in scoring the instrument for the disclosure index can be criticized because it treats disclosure of one item (regardless of its form or content) as being equal, and does not indicate how much emphasis is given to a particular content category (Haniffa et al 2011). To capture the intensity of intellectual capital content and to partly overcome the problem of using an index score, we follow Haniffa et al 2011 to add another ICD component namely intellectual capital word count (ICWC). We also attempted to analyze the level of focus exhibited in the communication i.e. Annual report through measuring the intensity of the ICD. Intensity or direction implies the measurement of the direction of the symbolic meaning contained in the message. According to Krippendorff (1980) words are a preferred measure when intended to measure the amount of total volume devoted to a topic and to ascertain the importance of that topic. Since the new component of ICWC is added to capture the intensity of the ICD in the overall ICD of the firm, in the departure from the previous studies graphical and pictorial messages were included in the word count measure. Every component of the ICD under study (Internal, External, and Human) in the form of graphical and pictorial messages were given the score of 1, so as to arrive the total volume of the ICD measuring the Intensity.

Following Haniffa et al (2011) and Beattie and Thomson (2007), and taking 'phrases', or what term 'pieces of information' and in this study also the pictorial and graphical messages as the basis of coding, the number of words/figures relating to each intellectual capital item in the checklist was counted and added together to arrive at ICWC for each company.

Table 2

Variable name	***Variable***	***Measure***
ICDI	Overall Intellectual Capital Disclosure	Number of items disclosed in the annual report divided by 129
FICD	Total disclosure score related to forward-looking information	IC Disclosure for all the forward-looking oriented Intellectual Capital information.
HICD	Total disclosure score related to historically oriented information	IC Disclosure for all the Historical oriented Intellectual Capital information
WCIC	Volume of intellectual capital disclosure	Total number of words disclosed in relation to Intellectual Capital information

PrID	Proportion of Independent Directors (Board Composition)	Number of independent directors on board divided by total number of directors on board
BZ	Board Size	Total number of Board of Directors
RD	Role Duality	Take the value of 1 if the Chairman is also the CEO of the firm; 0 otherwise.
SHFL	Family Shareholding of promoters family	Share ownership more than or equal to 1% held by promoters family members of the company.
SHIN	Shareholding of institutional investors	Shareholding of institutional investors by any number
SHCN	Shareholding Concentration	Share ownership held by one person or more for more than or equal to 5%
NACM	Number of Audit committee meetings	Total number of Audit committee meetings
AGE	Age of the Organization	Time since founding
SIZE	Size of the Company	The natural logarithm of total assets
GRTH	Growth opportunities of the firm	Market value to Book value of equity shares
ROE	Profitability	Return on Equity

While the indexes of the Intellectual capitals are termed in the dependable category, corporate governance and control variables are termed to be the independent variables. The data for the independent variables were collected from that of the annual reports of the companies and from the database of Ace Equity. Table 2 summarizes the definition of both independent and dependent variables.

A Multiple regression method is used to test the relationship between intellectual capital disclosure based on the indexes and the various corporate governance and control variables. In this case, the model for regression is specified thus:

$$IC_{ij} = \beta_0 + \beta_1 PrID_{ij} + \beta_2 BZ_{ij} + \beta_3 RD_{ij} + \beta_4 SHMD_{ij} + \beta_5 SHFL_{ij} + \beta_6 SHIN_{ij} + \beta_7 SHCN_{ij} + \beta_8 NACM_{ij} + \beta_9 AGE_{ij} + \beta_{10} SIZE_{ij} + \beta_{11} GRTH_{ij} + \beta 12 ROE_{ij} + \varepsilon_{ij}$$

where IC = Overall Intellectual Capital Disclosure measured in different form of indexes, PrID = Proportion of Independent Directors (Board Composition, BZ = Board Size, RD = Role Duality, SHFL = Family Shareholding of promoters family, SHIN = Shareholding of institutional investors, SHCN = Shareholding Concentration, NACM = Number of Audit committee meetings, AGE = Age of the Organization, SIZE = Size of the Company, GRTH = Growth opportunities of the firm, ROE = Return on Equity (Profitability), β = parameters, $\varepsilon = \text{error term}$, $i = $ the *i*th observation, j = *j*th firm.

To wean out possible multi collinearity issues, the correlations among the independent variables were computed and examined. In addition, the variance inflation factors (VIF) were reviewed. To ensure normality, test were performed for the skewness and kurtosis properties of the data and were reviewed under shapiro-wilk test to ensure goodness of fit. Finally, the data were transformed when normality was an issue. A series of analysis were conducted to ascertain the normality, homoscedasticity and linearity assumptions in the form of Q-Q plots, analysis of residuals and plots of the studentised residuals against predicted values.

Table 3 presents the result for the correlations between all the variables. Since the correlation is being carried on untransformed data, we have carried and presented the Pearson's and Spearman's form of correlation to give a clarity towards the association between variables. Kennedy (1985) suggested that multi collinearity be viewed as a serious problem only if the correlation between explanatory variables exceeds 0.8. All the association among the Independent variables with the exception of SHFL – SHIN do not exceed the mentioned threshold. In addition, the VIF computed for the explanatory variables are not more than five for any of them giving sufficient evidence (Hair et al., 1995, Ringle et al., 2015). Consequently, we can confirm there is no multi collinearity issues among the explanatory variables.

The results clearly indicates the association of majority of the variables with one or more of the Intellectual Capitals form. The correlation table clearly indicates PrID as the most common explanatory variable significantly correlated with various forms of ICD at both 5% and 1% level. PrID is also significantly correlated with all the external forms of ICD. While, SHCN is correlated with ICDI, FICDI and FLEICD significantly. RD is significantly correlated with ICDI and HEICD. In addition, SHFL, BZ, are significantly correlated with FICDI, IICWC respectively. Moreover, NACM and SHIN both are significantly correlated with HEICD. Among the controls, AGE is significantly correlated with ICDI, FICDI, HICDI, WCIC, EICWC and HEICD. In addition, SIZE is also significantly correlated with ICDI, WCIC, HEICD, FLEICD and EICWC. GRTH and ROE are significantly correlated with all the forms of ICD.

5. Results

Descriptive

The table (number) describes the descriptive statistics for the various forms of Intellectual Capital Disclosure discussed along with the Independent variables and control variables for all the sample firms undertaken for the study. The Intellectual capital disclosure index ranges between 0.062 to 0.2946 with a mean of 0.177 and median of 0.186. The stats for the sub categorical intellectual capital disclosure is not very far from ICDI even though it highly depends on the extent of measure for the index calculation. As evident, the mean for ICDI, EICDI, and HICDI is 0.180, 0.202, and 0.150 respectively.

The mean word count for the overall Intellectual capital disclosure in the form ICWC stood for 2175 words, which is quite low compared to that of developed economies (Li. Et al 2008) and with the minimum and maximum value being 324 and 4584 respectively. The mean words for the Forward looking intellectual capital disclosure (FICD) and Historical intellectual capital disclosure (HICD) remained at 335 and 721 words respectively clearly indicating the company's focus more towards the achievement for the financial year completed in the view of cause and effect relationship as predicted by the time expectation theory. Among the explanatory variables, PrID stood at 39% mean while NACM and BZ remained at 5.6 and 11. The average AGE of the sample firms within the study is 49 years with mean ROE of 19.63%.

Regression

The first column of Table 5 represents the regression result for the overall intellectual capital disclosure. The regression result of ICDI produces the r square of 45% and adjusted r square of 41%. Apart from BZ, in Corporate Governance variables and GRTH in control variables all the variables from the explanatory variables and the control variables are significant. NACM is significant at 1% level, while PrID, SHFL, SHIN, SHCN and RD are significant at 5% level. AGE is significant at 1% level, and the other control variables viz SIZE and ROE are significant at 5% level. With the exception of RD, in explanatory variables and SIZE in control variables all the factors regressed are positively associated with ICDI.

The second column represents the regression result for the Forward-looking Intellectual Capital disclosure (FICDI). The regression that comes with the R Square and adjusted R square of 32% and 26% respectively, is significantly associated with explanatory variables like SHFL, SHIN and SHCN. Moreover, with control variables in the form of AGE and ROE, Although ROE is associated negatively. In the third column, the result for Historical Intellectual Capital Disclosure (HICDI) with the R square of 23% and showing significant results for the SHFL, SHIN and SHCN, while for control variables with AGE and ROE. SHCN and ROE are negatively associated. The fourth column represents the regression result for the Intellectual capital word count (ICWC) with the R square of 29% with the variables of SHFL and SHIN associated significantly along with AGE and ROE among the controls. Wherein, ROE is associated negatively and is significant at 1% level, while the rest mentioned are positively associated and are significant at 5% level.

The first column of the next table 10 shows the regression result for the (HIICD) Historical Internal intellectual capital disclosure with the R square of 18%. The variable SHFL is positively associated being significant, while among the controls only ROE is significant although being associated negatively. The second column of the same table represents result for the Forward-looking Internal Intellectual capital (FIICD) with R square of 14%, Wherein PrID and SHFL are statistically significant, while ROE among the controls is negatively associated and is significant at 5% level. The third column represents the result for the Internal Intellectual capital word count (IICWC) with the r square of 17% with BZ and SHFL being positive and significant at 5% level and within controls, ROE is significant and negatively associated.

In the table 11, the first column represents the regression result for the dependent variable of historical external intellectual capital disclosure (HEICD) producing R square of 34%. Only variable SHIN is significant among the explanatory variables while AGE and ROE among the control variables. ROE is significant at 1% level and is negative while rest both variables are significant at 5% and are positive. The second column represents forward looking external Intellectual capital disclosure (FLEICD), with the R square of 18% with SHCN (positively) and ROE (negatively) the only variables significant at 5% level. The third column represents the result

for External Intellectual capital word count (EICWC) producing the r square of 26% with SHFL (positively) and ROE (negatively) the only variables significant at 5% level.

Finally, the first column of the table 12 represents the regression result for the Historical human Intellectual capital disclosure (HHICD), with the R square of 17% and the variables PrID, SHFL and RD are positively significant at 5% level among all the variables examined. The second column displays the result for the Forward-looking human Intellectual capital disclosure (FLHICD) with the r square of 17%, with SHFL and AGE are the only variables that are significant (positively). Lastly, the third column represents the result for the Human intellectual capital disclosure (HICWC) producing R square of 16%, where in the PrID and SHFL are statistically significant at 5% level and are positive. While GRTH among the controls is significant at 5% level and is negative.

Hypotheses

Analyzing the findings of the regression results and with that of the hypotheses framed will give us the better picture of the research direction. The first hypotheses expected of PrID to be associated with overall ICD is very well supported by the regression result with its significant level of association not only with ICDI but also various other forms FIICD, HHICD, HICWC at 5% level. It did not yield any statistical meaningful results for the semantic properties (Historical and forward looking) of overall ICD nor for the word count. But looking at the individual results especially the variables mentioned, it clearly says that more the proportionate of independent directors within the board more the disclosure of Intellectual capital in the form of Forward-looking internal, Historical human and word count for the overall human Intellectual capital. Thus, contributing towards both the time expectation theory and the agency cost theory. The second hypotheses, of BZ is rejected, as it does not influence the disclosure of overall intellectual capital.

The third hypotheses of role duality of having negative influence over intellectual capital disclosure is confirmed by the significant regression result, so the companies having chairperson on the board also acting as CEO of the firm will hurt the overall Intellectual Capital Disclosure practice of the firm. The fourth hypotheses family ownership being negatively associated with ICD did not hold true as it turned out to be positively associated with ICD, as SHFL is significant and positively associated with ICDI and all the qualitative forms (semantic and word count) of ICDI along with various other forms of ICD. This finding strongly supports the previous studies of family shareholding of listed firms prove to be value intensifying in various forms (Anderson and Reeb (2003), Maury (2006) and Barontini and Caprio (2006)).

The hypotheses of institutional investor is also very well supported by the regression result. As SHIN is positively significant with ICDI and all qualitative aspects of ICDI (FICD, HICD, and ICWC) thus supporting the presence of institutional investor as it promotes better transparency and dissemination of information process. The sixth hypotheses of ownership concentration (SHCN) having negative consequences on the Intellectual capital disclosure does not hold true as the variable is positively associated with the overall ICDI. An interesting part of the finding is while the variable is positively associated with FICDI it is negatively associated with HICDI, giving a clear indication of the Time expectation theory in order to create and maximize value of the concentrated ownership.

The hypotheses of number of audit meetings having positive influence on the level of intellectual capital disclosure holds true as NACM is significantly (at 1% level) and positively associated with overall ICDI. Thus confirming, more the number of audit meetings within the firm is likely to increase the Intellectual capital disclosure of the given firm. Thus providing a platform for reducing the Information asymmetry and opportunistic behavior and contributing towards agency cost theory.

AGE is very well positively associated with the overall intellectual capital disclosure as is significant with ICDI and FICDI at 1% level. While that with HICDI and ICWC at 5% level. ROE is positively significant with the overall ICDI at 5%, but also significant (1% and 5%) negatively with the qualitative aspects of ICD. SIZE is negatively associated with the overall ICDI at 5% level; however, it did not yield any significance on the qualitative aspects of ICD. GRTH is not having any significant influence with the Intellectual capital Disclosure.

6. Summary and Conclusion

In the age of globalization, in every economy regulators, managers and investors sought non-financial disclosure along with financial means to help them in their decision-making. Organizations taking precautions and stand out for the non-financial disclosure will having an added advantage if such information is disclosed either qualitatively or quantitatively in all modes of communication. According to Keenan and Aggestam (2001) critical association exist between corporate governance and intellectual capital, wherein, the former shapes the patterns of stakeholder influences that affect managerial decision-making, while the latter focuses on forming and leveraging an organization's intangible capital. Based on this theory and focusing on this interpretation the purpose of this study was to analyze corporate governance factors on voluntary disclosure of intellectual capital during fiscal years 2011–2012 for 137 Indian listed companies.

Our results show that corporate governance plays an important role in orienting the amount of disclosure of Intellectual capital provided by Indian companies. Analyzing the statistical relationship among the variables and the intellectual capital disclosure it is very much evidenced about the direct association of the Intellectual capital disclosure with that of corporate governance variables. The overall Intellectual capital disclosure has direct association with all the variables except that of board size (CG variable) and growth of the firm (control variable). While, all the corporate governance variables are associated with one or more of the intellectual capital disclosure form (quantitative or qualitative). The proportion of independent directors is positively associated with the amount of intellectual capital disclosed. The relation empirically tested and thus established clearly demonstrate that greater the ratio of independent directors results in greater the quantity of intellectual capital disclosed, however, the results are partially different when the quality of disclosure is analyzed. This could be primarily due to independent directors not taking an active role on the board (Fama and Jensen, 1983) however, it also depends on their level of expertise and knowledge that influences the intellectual capital disclosure, especially qualitative along with internal and external.

While role duality and size are negatively related with the overall Intellectual capital disclosure index. Our findings show that the size of the board of directors is not statistically significant factor in IC disclosure for Indian companies a view in contrast with other literatures (Cerbioni and Parbonetti, 2006; Gracia et al 2010). We also find confirmation of our Institutional Shareholding and number of Audit committee meetings, underpinned by agency theory arguments to be positively associated and encouraging voluntary disclosure of Intellectual capital. The empirical results clearly demonstrates that the system of corporate governance is based upon the chain of interdependent factors, all of that plays a critical role in developing a governance framework. Which can be further derived from the result developed through the empirical testing in this study and can be stated as a governance framework developed through a board consisting of sizeable number of its members, of which majority are independent directors, having a clear separation of role between chairperson and CEO, having directors representing minority and institutional shareholders and having maximum number of audit meetings will directly encourage the overall disclosure of intellectual capital (Fama and Jensen, 1983; 1994; Vafeas, 1999; Cerbioni and Parbonetti, 2006; Li et al 2008).

The limitations in this study are varied and touches various dimension of the analysis. First, the index-creating sheet is developed considering the sample of Indian companies, so it is difficult to compare the scores with that of the literatures developed for the developed economies, The reliability and validity issues in content analysis remain unresolved (Krippendorff, 1980). Secondly, the study do not differentiate with the Intellectual capital-intensive industry with that of non-intensives. Thirdly, the sample size consist of only the listed companies while it completely ignores the non-listed firms. Fourth, the analysis can be increased while including other modes of communication as well along with annual reports. Lastly, the scope could have been increased by increasing the dimension of quality of voluntary disclosure and the number of financial years of the study.

Despite several limitations discussed above, this paper contributes several ways towards the studies of corporate governance and voluntary disclosure especially in the form of Intellectual Capital. First, we establish the link between the corporate governance variables in the form of board characteristics and voluntary disclosure in the form of Intellectual capital. Secondly, we not only captured the quantitative details of Intellectual capital, but also the semantic properties in the form forward looking and historical information underpinned by time expectation theory, along with the word count of the Intellectual capital disclosure in the annual reports of the sample companies. Importantly, this study is first of its kind to extend the existing knowledge with respect to the corporate governance and intellectual capital (quantitatively and qualitatively) from an emerging economy point of view.

In the future research, the analysis of intellectual capital should be explored from other media as well apart from the annual report for example; press releases. Organizational case studies can be used to establish the results with deeper examination. Moreover, it would it would certainly help to broaden this study to include other companies from the Asian Region, to corroborate and to clarify the similarity or performance of the internal corporate governance mechanism within the entire region. Moreover, expanding the sample companies to a period with greater number of years may favor the solidity of the results. It is also possible to conduct a study to look at how investing in Corporate governance mechanism and thus Intellectual capital efficiency can contribute to the overall performance of the firm.

References

Abbott, L. J., Park, Y. and Parker, S. (2000) The effects of audit committee activity and independence on corporate fraud, Managerial Finance, 26(11), pp. 55–67.

Abeysekera, I. and Guthrie, J. (2005), "Annual reporting trends of intellectual capital in Sri Lanka", Critical Perspectives on Accounting, Vol. 16 No. 3, pp. 151-63. Accounting and Economics 33, 375–400.

Ahmed, K. and Courtis, J. K. (1999) Associations between corporate characteristics and disclosure levels in annual reports: a meta-analysis, British Accounting Review, 31(1), pp. 35–61.

Akhtaruddin, M., Hossain, M. A., Hossain, M., and Yao, L. (2009). Corporate Governance and Voluntary Disclosure in Corporate Annual Reports of Malaysian Listed Firms. Journal of Applied Management Accounting Research, (Winter):1-20.

Al-Moataz, Ehsan, and Khaled Hussainey. "Determinants of corporate governance disclosure in Saudi companies." Journal of Economics and Management 5.1 (2012): 52-84.

An Yi Howard Davey, (2010),"Intellectual capital disclosure in Chinese (mainland) companies", Journal of Intellectual Capital, Vol. 11 Iss 3 pp. 326 – 347

Anderson, Christopher W., and Terry L. Campbell II. "Corporate governance of Japanese banks." Journal of Corporate Finance 10.3 (2004): 327-354.

Anderson, Ronald C., and David M. Reeb. "Founding-family ownership and firm performance: evidence from the S&P 500." The journal of finance 58.3 (2003): 1301-1328.

Ante, P. (2001), "Value creation efficiency analysis of Croation banks 1996-2000", International Business Consulting LLC, Zagreb, available at: www.vaic-on.net (accessed May 2005).

Barontini, Roberto, and Lorenzo Caprio. "The effect of family control on firm value and performance: Evidence from continental Europe." European Financial Management 12.5 (2006): 689-723.

Beasley, M. S. (1996) An empirical analysis of the relation between the board of director composition and financial statement fraud, The Accounting Review, 71(4), pp. 443–465.

Beekes, Wendy, Peter Pope, and Steven Young. "The link between earnings timeliness, earnings conservatism and board composition: evidence from the UK." Corporate Governance: An International Review 12.1 (2004): 47-59.

Berg, Sanford V., and Stanley K. Smith. "CEO and board chairman: A quantitative study of dual vs. unitary board leadership." Directors and Boards 3.1 (1978): 34-39.

Bharathi Kamath, G. "Intellectual capital and corporate performance in Indian pharmaceutical industry." Journal of Intellectual Capital 9.4 (2008): 684-704.

Bharathi Kamath, G. "The intellectual capital performance of the Indian banking sector." Journal of Intellectual Capital 8.1 (2007): 96-123.

Blue Ribbon Report (1999) Report and Recommendations of the Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees (New York: New York Stock Exchange and the National Association of Securities Dealers).
Bontis, N. (2001), "Assessing knowledge assets: a review of the models used to measure intellectual capital", International Journal of Management Reviews, Vol. 3 No. 1, pp. 41-60.

Bontis, Nick. "Intellectual capital disclosure in Canadian corporations." Journal of Human Resource Costing & Accounting 7.1 (2003): 9-20.
Boone, Audra L., et al. "The determinants of corporate board size and composition: An empirical analysis." Journal of financial Economics 85.1 (2007): 66-101.
Booth, R. (1998). The Measurement of Intellectual Capital. Management Accounting (UK), 76 (10), pp 26-28.
Bornemann, Manfred, et al. "Holistic measurement of intellectual capital." International Symposium Measuring and Reporting Intellectual Capital: Experiences, Issues and Prospects. June. Amsterdam. 1999.
Botosan, C. A. (1997) Disclosure level and the cost of capital, The Accounting Review, 72(3), pp. 323–349.
Boyd, B. K. (1994) Board control and CEO compensation, Strategic Management Journal, 15(5), pp. 335–344.
Boyd, B.: 1995, 'CEO Duality and Firm Performance: A Contingency Model', Strategic Management Journal 6, 301–312.
Bozzolan, S., Favotto, F. and Ricceri, F. (2003) Italian annual intellectual capital disclosure. An empirical analysis, Journal of Intellectual Capital, 4(4), pp. 543–558.
Brennan, N. (2001). 'Reporting Intellectual Capital in Annual Reports: Evidence from Ireland', Accounting, Auditing & Accountability Journal, 14 (4): 423–436.
Brennan, N. and Connell, B. (2000), "Intellectual capital: current issues and policy implications", Journal of Intellectual Capital, Vol. 1 No. 3, pp. 206-40.
Breton, G. and Taffler, R.J. (2001), "Accounting information and analysts stock recommendation decisions: a content analysis approach", Accounting and Business Research, Vol. 31 No. 2, pp. 91-101.
Brooking, A. (1996) Intellectual Capital: Core Asset for the Third Millennium Enterprise. London: Thomson Business Press.
Bueno, Eduardo, Marí Paz Salmador, and Óscar Rodríguez. "The role of social capital in today's economy: Empirical evidence and proposal of a new model of intellectual capital." Journal of Intellectual Capital 5.4 (2004): 556-574.
Bukh, N. (2003) Commentary. The relevance of intellectual capital disclosure: a paradox?, Accounting, Auditing and Accountability Journal, 16(1), pp. 49–56.
Cadbury Committee Report (1992) Report of the Cadbury Committee on the Financial Aspects of Corporate Governance (London: Gee).
Canibano, L., Garcia-Ayuso, M., Sanchez, P. and Olea, M. (1999), "Measuring intangibles to understand and improve innovation management preliminary results", paper presented at the international symposium measuring and reporting intellectual capital: experiences, issues and prospects, Amsterdam, June.
Cerbioni, F., and Parbonetti, A. (2007). 'Exploring the Effects of Corporate Governance on Intellectual Capital Disclosure: An Analysis of European Biotechnology Companies', European Accounting Review, 16 (4): 791–826.
Cerbioni, Fabrizio, and Antonio Parbonetti. "Exploring the effects of corporate governance on intellectual capital disclosure: an analysis of European biotechnology companies." European Accounting Review 16.4 (2007): 791-826.
Chaganti, Rajeswararao S., Vijay Mahajan, and Subhash Sharma. "Corporate board size, composition and corporate failures in retailing industry [1]." Journal of Management Studies 22.4 (1985): 400-417.
Chen Goh, Pek, and Kwee Pheng Lim. "Disclosing intellectual capital in company annual reports: evidence from Malaysia." Journal of Intellectual Capital 5.3 (2004): 500-510.
Cheng, E. and S. Courtenay: 2006, 'Board Composition, Regulatory Regime and Voluntary Disclosure', The International Journal of Accounting 4, 262–289.
CICA (2002) Management's Discussion and Analysis: Guidance on Preparation and Disclosure (Toronto, Ontario: Canadian Institute of Chartered Accountants).
Clemente, A. G., and Labat, B. N. (2009). Corporate Governance Mechanisms and Voluntary Disclosure. The Role of Independent Directors in the Boards of Listed Spanish Firms. Research Projects of Madrid Autonomous University.
Coles, Jeffrey L., Naveen D. Daniel, and Lalitha Naveen. "Boards: Does one size fit all?." Journal of financial economics87.2 (2008): 329-356.
Conyon, M. and He, L. (2004) Compensation committees and CEO compensation incentives in U.S. Entrepreneurial firms, Journal of Management Accounting Research, 16, pp. 35–56.
Conyon, M. and Peck, S. (1998) Board control, remuneration committees, and top management compensation, Academy of Management Journal, 41(2), pp. 146–157.
Cronqvist, Henrik, and Mattias Nilsson. "Agency costs of controlling minority shareholders." Journal of Financial and Quantitative analysis 38.4 (2003): 695-719.
Danish Trade and Industry Development Council (1997), Intellectual Capital Accounts: Reporting and Managing Intellectual Capital, Danish Trade Development Council, Copenhagen.
Darrough, M. N. and Stoughton, N. M. (1990) Financial disclosure policy in an entry game, Journal of Accounting and Economics, 12, pp. 219–243.
DeAngelo, H. and L. DeAngelo: 2000, 'Controlling Stockholders and the Disciplinary Role of Corporate Layout Policy: A Study of the Timer Mirror Company', Journal of Financial and Economics 56, 153–207.
Eccles, R. G., Herz, R. H., Keegan, E. M. and Phillips, D. M. H. (2001) The Value Reporting Revolution: Moving Beyond the Earnings Game (New York: Wiley).
Edvinsson, L. & Sullivan, P. (1996). Developing a model for managing intellectual capital. European Management Journal, 14 (4): 356-364.
Edvinsson, L. (1997) Developing Intellectual Capital at Skandia, Long Range Planning, 30, 3, 336±373.
Edvinsson, L. and Malone, M. (1997) Intellectual Capital: Realizing Your Company's True Value By Extent of Voluntary Disclosure', Journal of International Accounting, Auditing & Taxation 10, 139–156.
Eng, L. L. and Mak, Y. T. (2003) Corporate governance and voluntary disclosure, Journal of Accounting and Public Policy, 22(4), pp. 325–345.
Fama, E. F. (1980) Agency problems and the theory of the firm, Journal of Political Economy, 88(2), pp. 288–307.
Fama, E. F. and Jensen, M. (1983) Separation of ownership and control, Journal of Law and Economics, 26(2), pp. 301–326.
FASB (2001) Improving Business Reporting: Insights into Enhancing Voluntary Disclosure, Steering Committee Report, Business Reporting Research Project, Financial Accounting Standard Board. Financial Economics 40, 185–213.
Firer, S. and Williams, M. (2002), "Intellectual capital and traditional measures of corporate performance", Corporate Governance and Intellectual Capital Archive, Paper No. 6, pp. 1-25.
Forker, J. J. (1992). Corporate Governance and Disclosure Quality. Accounting and Business Research, 22(86), pp. 111-124.
Fuerst, O. and S. Kang, 2000, Corporate Governance, Expected Operating Performance, and Pricing, working paper, Yale School of Management, New Haven, CT.
G. Bharathi Kamath, (2008),"Intellectual capital and corporate performance in Indian pharmaceutical industry", Journal of Intellectual Capital, Vol. 9 Iss 4 pp. 684 – 704
Garcı`a-Meca, E. and Martı`nez, I. (2005) Assessing the quality of disclosure on intangibles in the Spanish capital market, European Business Review, 17(4), pp. 305–313.
Garcı`a-Meca, E., Parra, I., Larran, M. and Martı`nez, I. (2005) The explanatory factors of intellectual capital disclosure to financial analysts, European Accounting Review, 14(1), pp. 63–94.
Garcia Lara, J. M., B. G. Garcia Osma, and F. Penalva, 2007, Board of directors' characteristics and conditional accounting conservatism, European Accounting Review 16, 727–755.
Garcia-Meca, E., and Martinez, I. (2005). Assessing the Quality of Disclosure on Intangibles in the Spanish Capital Market. European Business Review, 17(4), pp. 305-313. http://dx.doi.org/10.1108/09555340510607352
Garcia-Meca, Emma, and Juan P. Sanchez-Ballesta. "The association of board independence and ownership concentration with voluntary disclosure: A meta-analysis." European Accounting Review 19.3 (2010): 603-627.
Gelauff, George MM, and Could den Broeder. Governance of stakeholder relationships: The German and Dutch experience. Vol. 127. Centraal Planbureau, 1996.
Ghazali, Nazli A. Mohd, and Pauline Weetman. "Perpetuating traditional influences: Voluntary disclosure in Malaysia following the economic crisis." Journal of International Accounting, Auditing and Taxation 15.2 (2006): 226-248.
Ghosh, D. and Wu, A. (2007), "Intellectual capital and capital markets: additional evidence", Journal of Intellectual Capital, Vol. 8 No. 2, pp. 216-35.
Go´mez-Mejı´a, L., M. Nu´n˜ez-Nickel and I. Gutie´rrez: 2001, 'The Role of Family Ties in Agency Contracts', Academy of Management Journal 44(1), 81–95.
Goh, P. C., and Lim K. P. (2004). 'Disclosing Intellectual Capital in Company Annual Reports: Evidence from Malaysia', Journal of Intellectual Capital, 5 (3): 500–510.
Goodstein, Jerry, Kanak Gautam, and Warren Boeker. "The effects of board size and diversity on strategic change." Strategic management journal 15.3 (1994): 241-250.
Gul, F. and S. Leung: 2004, 'Board Leadership, Outside Directors Expertise and Voluntary Corporate Disclosures', Journal of Accounting and Public Policy 23, 351–379.
Guthrie, J. and Petty, R. (1999),``Knowledge management'', Company Secretary, January, Vol. 9 No. 1, pp. 38-41.
Guthrie, James, et al. "Using content analysis as a research method to inquire into intellectual capital reporting." Journal of intellectual capital 5.2 (2004): 282-293.
Hair, J. F. Jr., Anderson, R. E., Tatham, R. L. & Black, W. C. (1995). Multivariate Data Analysis (3rd ed). New York: Macmillan.
Haniffa, R. M. and Cooke, T. E. (2002) Culture, corporate governance and disclosure in Malaysian corporations, Abacus, 38(3), pp. 317–349.
Haniffa, R. M. and Cooke, T. E. (2005) The impact of culture and governance on corporate social reporting, Journal of Accounting and Public Policy, 24(5), pp. 391–430.

Hart O and Moore J (1994), "A Theory of Debt Based on the Inalienability of Human Capital", Quarterly Journal of Economics, Vol. 109, No. 4, pp. 841-879.
Healy, P. M. and Palepu, K. J. (2001) Information asymmetry, corporate disclosure and the capital markets: a review of the empirical disclosure literature, Journal of Accounting and Economics, 31(1–3), pp. 405–440.
Ho, S. S. M., and Wong, K. S. (2001). 'A Study of the Relationship Between Corporate Governance Structures and the Extent of Voluntary Disclosure', Journal of International Accounting, Auditing and Taxation, 10 (2): 139–156.
Ho, Simon SM, and Kar Shun Wong. "A study of the relationship between corporate governance structures and the extent of voluntary disclosure." Journal of International Accounting, Auditing and Taxation 10.2 (2001): 139-156.
Indra Abeysekera, (2007),"Intellectual capital reporting between a developing and developed nation", Journal of Intellectual Capital, Vol. 8 Iss 2 pp. 329 – 345
James Guthrie, (2001),"The management, measurement and the reporting of intellectual capital", Journal of Intellectual Capital, Vol. 2 Iss 1 pp. 27 – 41
Jensen M and Meckling W (1976), "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure", Journal of Financial Economics, Vol. 3, pp. 305-360.
Johanson, U., Martensson, M. and Skoog, M. (1999), "Measuring and managing intangibles: 11 Swedish exploratory case studies", paper presented at the international symposium measuring and reporting intellectual capital: experiences, issues and prospects, Amsterdam, June.
Juma, Norma, and G. Tyge Payne. "Intellectual capital and performance of new venture high-tech firms." International Journal of Innovation Management 8.03 (2004): 297-318.
Kamath, B.G. (2006), "Understanding the intellectual capital statements: a case study of Infosys Technologies Ltd", Int. J. Learning and Intellectual Capital, Vol. 3 No. 3, pp. 268-92.
Kamath, B.G. (2007), "Intellectual capital performance of Indian banking sector", Journal of Intellectual Capital, Vol. 8 No. 1, pp. 96-123.
Kamath, G.B. (2008), "Intellectual capital and corporate performance in Indian pharmaceutical industry", Journal of Intellectual Capital, Vol. 9 No. 4, pp. 684-704.
Kaplan, R. and Norton, D.P. (1992), "The balanced scorecard – measures that drive performance", Harvard Business Review, Vol. 70 No. 1, pp. 71-9.
Kavida, V., and N. Sivakoumar. "Corporate governance in knowledge economy-the relevance of intellectual Capital." (2008).
Keenan, J., and Aggestam, M. (2001). Corporate Governance and Intellectual Capital: Some Conceptualizations. Corporate Governance, 9(4), pp.259-275. http://dx.doi.org/10.1111/1467-8683.00254 cc
Kennedy, P. (1985), A Guide to Econometrics, 2nd ed., MIT Press, Cambridge, MA.
Kerlinger, F.N. (1986). Foundations of behavioural research (3rd ed), New York: Holt, Rinehart and Winston.
Klein, A.: 2002, 'Audit Committee, Board of Director Characteristics, and Earning Management', Journal of
Klein, D.A. (1998). The strategic management of intellectual capital. Boston: Butterworth- Heinenmann.
Krippendorf, K. (1980) Content Analysis. An Introduction to its Methodology (London: Sage).
Lakhal, Faten. "Voluntary earnings disclosures and corporate governance: Evidence from France." Review of Accounting and Finance 4.3 (2005): 64-85.
Lang, Mark, and Maureen McNichols. "Institutional trading and corporate earnings and returns." (1997).
Lehn, Kenneth M., Sukesh Patro, and Mengxin Zhao. "Determinants of the size and composition of US corporate boards: 1935-2000." Financial Management 38.4 (2009): 747-780.
Lev, B. (1989) On the usefulness of earnings and earnings research: lessons and directions from two decades of empirical research, Journal of Accounting Research, 27(2), pp. 153–192.
Lev, B. (2001) Intangibles: Management, Measurement and Reporting (Washington, DC: Brookings Institution Press).
Lev, B. and Zarowin, P. (1999) The boundaries of financial reporting and how to extend them, Journal of Accounting Research, 37(2), pp. 353–385.
Lev, B.: 1992, 'Information Disclosure Strategy', California Management Review, Summer, 9–32.
Li, J., Pike, R. and Haniffa, R. (2008), "Intellectual capital disclosure and corporate governance structure in UK firms", Accounting and Business Research, Vol. 38 No. 2, pp. 137-59.
Libeskind, J. (1996) Knowledge, Strategy and Theory of the Firm, Strategic Management Journal, 17, Special Issue.
Linck, James S., Jeffry M. Netter, and Tina Yang. "The determinants of board structure." Journal of financial economics 87.2 (2008): 308-328.
Low, J. (2000), "The value creation index", Journal of Intellectual Capital, Vol. 1 No. 3, pp. 252-62.
Low, J., and Kalafut. (2002). Invisible Advantage – How Intangibles are Driving Business Performance.. Perseus Publishing, Cambridge.
Lynn, B.E. (1998) Intellectual capital: key to value added success in the next millennium. CMA – The Management Accounting Magazine, 72, 1, 10–15.
Marston, Claire L., and Philip J. Shrives. "The use of disclosure indices in accounting research: a review article." The British Accounting Review 23.3 (1991): 195-210.
Maury, Benjamin. "Family ownership and firm performance: Empirical evidence from Western European corporations." Journal of Corporate Finance 12.2 (2006): 321-341.
Mavridis, Dimitrios G. "The intellectual capital performance of the Japanese banking sector." Journal of Intellectual capital5.1 (2004): 92-115.
Mavrinac, Sarah, and Terry Boyle. "Sell-side analysis, non-financial performance evaluation and the accuracy of short-term earnings forecasts." Ernst & Young LLP Working Paper(1996).
McConnell, John J., and Henri Servaes. "Additional evidence on equity ownership and corporate value." Journal of Financial economics 27.2 (1990): 595-612.
McKinnon, Jill L., and Lian Dalimunthe. "Voluntary disclosure of segment information by Australian diversified companies." Accounting & Finance 33.1 (1993): 33-50.
Meek, G.K., Roberts, C.B. and Gray, S.J. (1995), "Factors influencing voluntary annual reports disclosures by US and UK and continental European multinational corporations", Journal of International Business Studies, Vol. 26, pp. 555-72.
Menon, Krishnagopal, and Joanne Deahl Williams. "The use of audit committees for monitoring." Journal of Accounting and Public Policy 13.2 (1994): 121-139.
Millar, Carla CJM, et al. "Corporate governance and institutional transparency in emerging markets." Journal of business ethics 59.1-2 (2005): 163-174.
Miller, M., Du Pont, B.D., Fera, V., Jeffrey, R., Mahon, B., Payer, B.M. and Starr, A. (1999), "Measuring and reporting intellectual capital from a diverse Canadian industry perspective", paper presented at the international symposium measuring and reporting intellectual capital: experiences, issues and prospects, Amsterdam, June.
Ming-Chin Chen, Shu-Ju Cheng, Yuhchang Hwang, (2005),"An empirical investigation of the relationship between intellectual capital and firms' market value and financial performance", Journal of Intellectual Capital, Vol. 6 Iss 2 pp. 159-176 http://dx.doi.org/10.1108/14691930510592771
Mitchell Williams, S. "Is intellectual capital performance and disclosure practices related?." Journal of Intellectual capital2.3 (2001): 192-203.
Nahapiet J and Ghoshal S (1998), "Social Capital, Intellectual Capital and the Organization Advantage", Academy of Management Review, Vol. 23, pp. 242-266.
Nahapiet, J., & Ghoshal, S., (1997). Social capital, intellectual capital and the creation of value in firms. Academy of Management Proceedings: 35-39.
National Commission on Fraudulent Financial Reporting, and James C. Treadway. Report of the national commission on fraudulent financial reporting. The Commission, 1987.
Nick Bontis, William Chua Chong Keow, Stanley Richardson, (2000),"Intellectual capital and business performance in Malaysian industries", Journal of Intellectual Capital, Vol. 1 Iss 1 pp. 85-100 http:// dx.doi.org/10.1108/14691930010324188.
Oliveras, Ester, et al. "Reporting intellectual capital in Spain." Corporate Communications: An International Journal 13.2 (2008): 168-181.
Olson, John F. "How to really make audit committees more effective." Bus. Law. 54 (1998): 1097.
Organisation for Economic Co-operation and Development (1999), ``Guidelines and instructions for OECD symposium'', International Symposium Measuring and Reporting Intellectual Capital: Experiences, Issues, and Prospects, June, OECD, Amsterdam, Paris.
Penrose E (1959), The Theory of the Growth of the Firm, Wiley, New York.
Petrash, G. (1996), "Down's journey to a knowledge value management culture", European Management Journal, Vol. 14 No. 8, pp. 265-73.
Petty, R. and Guthrie, J. (2000b), ``Intellectual capital literature review: measurement, reporting and management'', Journal of Intellectual Capital, Vol. 1 No. 2, May.
Pew Tan, Hong, David Plowman, and Phil Hancock. "Intellectual capital and financial returns of companies." Journal of Intellectual capital 8.1 (2007): 76-95
Pew Tan, Hong, David Plowman, and Phil Hancock. "The evolving research on intellectual capital." Journal of intellectual capital 9.4 (2008): 585-608.
Porter, M. E. (1992). Capital disadvantage: America's failing capital investment system. Harvard Business Review, 70, 65-82.
Prencipe, A. (2004) Proprietary costs and determinants of voluntary segment disclosure: evidence from Italian listed companies, European Accounting Review, 13(2), pp. 319–340.
Prodhan, Bimal. "Guest Editorial Corporate Governance and Long-Term Performance." Corporate Governance: An International Review 1.4 (1993): 172-177.
Rajan R and Zingales L (1998), "Power in a Theory of the Firm", Quarterly Journal of Economics, No. 108.
Rechner, Paula L., and Dan R. Dalton. "CEO duality and organizational performance: A longitudinal analysis." Strategic Management Journal 12.2 (1991): 155-160.
Ringle, Christian M., Wende, Sven, & Becker, Jan-Michael. (2015). SmartPLS 3. Bönningstedt: SmartPLS. Retrieved from http://www.smartpls.com
Roos, J., Roos, G., Dragonetti, N. and Edvinsson, L. (1998) Intellectual Capital: Navigating in the New Business Landscape. New York: New York University Press.

Ruland, William, Samuel Tung, and Nashwa E. George. "Factors associated with the disclosure of managers' forecasts." Accounting Review (1990): 710-721.
Samaha, K., K. Dahawy, and K. Hussainey. Corporate governance voluntary disclosures incentives in Egypt. Working paper, American University in Cairo, Egypt, 2011.
Schipper, Katherine. "Discussion of voluntary corporate disclosure: The case of interim reporting." Journal of Accounting Research (1981): 85-88.
SEC (2003) Final Rule: Disclosure in Management's Discussion and Analysis about Off-Balance Sheet Arrangements and Aggregate Contractual Obligations (Washington, DC: Securities and Exchange Commission).
Shleifer, A., Vishny, R., 1997. A survey of corporate governance. Journal of Finance 1997 52, 737–783.
Stempel, Guido H. "Content analysis." Research methods in mass communication 2 (1989): 125-136.
Steven Firer, S. Mitchell Williams, (2003),"Intellectual capital and traditional measures of corporate performance", Journal of Intellectual Capital, Vol. 4 Iss 3 pp. 348-360 http://dx.doi.org/10.1108/14691930310487806
Stewart, T. A. (1997). Intellectual Capital – The New Wealth of Organizations, London: Nicholas Brealey
Sullivan, P. (1998) Profiting from Intellectual Capital. Extracting Values from Innovation. IP Wiley.
Sullivan, P., (2000), Value-Driven Intellectual Capital ± How to Convert Intangible Corporate Assets into Market Value, John Wiley & Sons, New York, NY.
Sveiby, K. E. (1997) The New Organizational Wealth: Managing and Measuring Knowledge Based Assets (San Francisco, CA: Berret Koehler).
Tan, H.P., Plowman, D. and Hancock, P. (2007), "Intellectual capital and financial returns of companies", Journal of Intellectual Capital, Vol. 8 No. 1, pp. 76-95.
Thomsen, Steen, and Torben Pedersen. "Ownership structure and economic performance in the largest European companies." Strategic Management Journal (2000): 689-705.
Weber, P. "Content analysis: Quantitative applications in the social sciences." Beverly Hills: Sage Publications (1985).
Weber, Robert Philip. Basic content analysis. No. 49. Sage, 1990
Weimer, J. and Pape, J. (1999) A Taxonomy of Systems of Corporate Governance, Corporate Governance, 7, 2, 152±166.
Whiting, Rosalind H., and James C. Miller. "Voluntary disclosure of intellectual capital in New Zealand annual reports and the "hidden value"." Journal of Human Resource Costing & Accounting 12.1 (2008): 26-50.
Wild, John J. "The audit committee and earnings quality." Journal of Accounting, Auditing & Finance 11.2 (1996): 247-276.
Williams, S. Michell. Corporate governance diversity and its impact on intellectual capital performance in an emerging economy. University of Calgary, Faculty of Management, 2001.
Wong, M., and C. Gardner. "Intellectual capital disclosure: New Zealand evidence." Conference paper presented at the AFFANZ 2005 conference: Melbourne, Australia. 2005.
Xie, B., W. Davidson III and P. DaDalt: 2003, 'Earning Management and Corporate Governance: The Role of the Board and the Audit Committee', Journal of Corporate Finance 9, 295–316.
Yermack, David. "Higher market valuation of companies with a small board of directors." Journal of financial economics 40.2 (1996): 185-211.
Youndt M. A., Subramaniam M. & Snell S.A. (2004). Intellectual Capital Profiles: An Examination of Investments and Returns. Journal of Management Studies, 41(2):335-361.
Youndt, Mark A., Mohan Subramaniam, and Scott A. Snell. "Intellectual capital profiles: An examination of investments and returns." Journal of Management studies 41.2 (2004): 335-361.
Zahra, S. A. (1996). Governance, ownership, and corporate entrepreneurship: The moderating impact of industry technological opportunities. Academy of Management Journal, 39(6): 1713- 1735.

Table 3

Correlation Table

		Pearson r		Spearman rho	
ICDI	- FICDI	0.092		0.106	
ICDI	- HICDI	-0.009		0.010	
ICDI	- WCIC	-0.026		-0.012	
ICDI	- HIICD	0.072		0.023	
ICDI	- FIICD	0.090		0.082	
ICDI	- IICWC	0.036		0.003	
ICDI	- HEICD	-0.181	*	-0.088	
ICDI	- FLEICD	-0.177	*	-0.178	*
ICDI	- EICWC	-0.187	*	-0.114	
ICDI	- HHICD	0.037		0.004	
ICDI	- FLHICD	-0.058		-0.029	
ICDI	- HICWC	0.075		0.045	
ICDI	- PrID	0.122		0.081	
ICDI	- SHFL	0.134		0.068	
ICDI	- SHIN	-0.028		-0.011	
ICDI	- SHCN	0.270	**	0.173	*
ICDI	- NACM	0.086		0.148	
ICDI	- RD	-0.202	*	-0.183	*
ICDI	- BZ	-0.058		-0.045	
ICDI	- AGE	0.345	***	0.341	***
ICDI	- GRTH	0.377	***	0.367	***
ICDI	- SIZE	-0.218	*	-0.237	**
ICDI	- ROE	0.394	***	0.308	***
FICDI	- HICDI	0.737	***	0.669	***
FICDI	- WCIC	0.779	***	0.721	***
FICDI	- HIICD	0.625	***	0.593	***
FICDI	- FIICD	0.578	***	0.541	***
FICDI	- IICWC	0.625	***	0.597	***

Correlation Table

		Pearson		Spearman	
		r		rho	
FICDI	- HEICD	0.599	***	0.515	***
FICDI	- FLEICD	0.389	***	0.352	***
FICDI	- EICWC	0.404	***	0.350	***
FICDI	- HHICD	0.618	***	0.566	***
FICDI	- FLHICD	0.651	***	0.610	***
FICDI	- HICWC	0.649	***	0.608	***
FICDI	- PrID	0.201	*	0.148	
FICDI	- SHFL	0.176	*	0.140	
FICDI	- SHIN	-0.040		0.004	
FICDI	- SHCN	0.261	**	0.317	***
FICDI	- NACM	0.095		0.098	
FICDI	- RD	0.038		0.018	
FICDI	- BZ	0.025		-6.337e-4	
FICDI	- AGE	0.327	***	0.327	***
FICDI	- GRTH	-0.217	*	-0.202	*
FICDI	- SIZE	0.077		0.085	
FICDI	- ROE	-0.285	***	-0.345	***
HICDI	- WCIC	0.917	***	0.902	***
HICDI	- HIICD	0.726	***	0.685	***
HICDI	- FIICD	0.675	***	0.624	***
HICDI	- IICWC	0.713	***	0.669	***
HICDI	- HEICD	0.619	***	0.597	***
HICDI	- FLEICD	0.557	***	0.532	***
HICDI	- EICWC	0.533	***	0.482	***
HICDI	- HHICD	0.656	***	0.634	***
HICDI	- FLHICD	0.625	***	0.573	***
HICDI	- HICWC	0.690	***	0.664	***
HICDI	- PrID	-0.131		-0.088	
HICDI	- SHFL	0.077		0.037	
HICDI	- SHIN	0.022		0.043	
HICDI	- SHCN	-0.101		-0.122	
HICDI	- NACM	0.052		0.045	
HICDI	- RD	0.060		0.060	
HICDI	- BZ	0.083		0.086	
HICDI	- AGE	0.210	*	0.192	*
HICDI	- GRTH	-0.233	**	-0.274	**
HICDI	- SIZE	0.046		0.093	
HICDI	- ROE	-0.332	***	-0.431	***
WCIC	- HIICD	0.745	***	0.705	***
WCIC	- FIICD	0.705	***	0.666	***
WCIC	- IICWC	0.740	***	0.695	***
WCIC	- HEICD	0.673	***	0.683	***
WCIC	- FLEICD	0.548	***	0.560	***
WCIC	- EICWC	0.526	***	0.523	***
WCIC	- HHICD	0.659	***	0.657	***
WCIC	- FLHICD	0.646	***	0.629	***
WCIC	- HICWC	0.707	***	0.706	***
WCIC	- PrID	-0.147		-0.116	
WCIC	- SHFL	0.046		0.036	
WCIC	- SHIN	0.060		0.052	
WCIC	- SHCN	-0.059		-0.084	
WCIC	- NACM	0.105		0.112	
WCIC	- RD	0.057		0.058	
WCIC	- BZ	0.118		0.122	
WCIC	- AGE	0.201	*	0.168	*
WCIC	- GRTH	-0.313	***	-0.333	***
WCIC	- SIZE	0.138		0.169	*

Correlation Table

		Pearson		Spearman	
		r		rho	
WCIC	- ROE	-0.422	***	-0.513	***
HIICD	- FIICD	0.873	***	0.805	***
HIICD	- IICWC	0.935	***	0.908	***
HIICD	- HEICD	0.260	**	0.306	***
HIICD	- FLEICD	0.265	**	0.315	***
HIICD	- EICWC	0.079		0.105	
HIICD	- HHICD	0.368	***	0.339	***
HIICD	- FLHICD	0.342	***	0.316	***
HIICD	- HICWC	0.519	***	0.481	***
HIICD	- PrID	-0.042		-0.045	
HIICD	- SHFL	0.118		0.103	
HIICD	- SHIN	-0.048		-0.039	
HIICD	- SHCN	0.074		0.072	
HIICD	- NACM	-0.029		-0.021	
HIICD	- RD	0.069		0.076	
HIICD	- BZ	0.155		0.156	
HIICD	- AGE	0.091		0.122	
HIICD	- GRTH	-0.190	*	-0.186	*
HIICD	- SIZE	-0.143		0.016	
HIICD	- ROE	-0.277	**	-0.366	***
FIICD	- IICWC	0.889	***	0.833	***
FIICD	- HEICD	0.238	**	0.284	***
FIICD	- FLEICD	0.114		0.156	
FIICD	- EICWC	0.058		0.088	
FIICD	- HHICD	0.418	***	0.398	***
FIICD	- FLHICD	0.348	***	0.322	***
FIICD	- HICWC	0.486	***	0.446	***
FIICD	- PrID	0.035		0.060	
FIICD	- SHFL	0.081		0.061	
FIICD	- SHIN	-0.039		-0.017	
FIICD	- SHCN	0.040		0.036	
FIICD	- NACM	-0.002		0.010	
FIICD	- RD	0.060		0.030	
FIICD	- BZ	0.137		0.138	
FIICD	- AGE	0.077		0.109	
FIICD	- GRTH	-0.190	*	-0.156	
FIICD	- SIZE	-0.132		-0.030	
FIICD	- ROE	-0.245	**	-0.316	***
IICWC	- HEICD	0.271	**	0.335	***
IICWC	- FLEICD	0.268	**	0.326	***
IICWC	- EICWC	0.062		0.073	
IICWC	- HHICD	0.371	***	0.347	***
IICWC	- FLHICD	0.304	***	0.284	***
IICWC	- HICWC	0.424	***	0.386	***
IICWC	- PrID	-0.048		-0.032	
IICWC	- SHFL	0.101		0.069	
IICWC	- SHIN	-0.040		-0.003	
IICWC	- SHCN	0.047		0.042	
IICWC	- NACM	0.019		0.039	
IICWC	- RD	0.057		0.054	
IICWC	- BZ	0.175	*	0.182	*
IICWC	- AGE	0.129		0.160	
IICWC	- GRTH	-0.210	*	-0.235	**
IICWC	- SIZE	-0.093		0.077	
IICWC	- ROE	-0.293	***	-0.420	***
HEICD	- FLEICD	0.627	***	0.583	***
HEICD	- EICWC	0.778	***	0.727	***
HEICD	- HHICD	0.294	***	0.263	**

Correlation Table

	Pearson r		Spearman rho	
HEICD - FLHICD	0.515	***	0.456	***
HEICD - HICWC	0.372	***	0.380	***
HEICD - PrID	0.330	***	0.219	*
HEICD - SHFL	0.007		-0.080	
HEICD - SHIN	0.073		0.185	*
HEICD - SHCN	-0.025		-0.034	
HEICD - NACM	0.205	*	0.126	
HEICD - RD	0.189	*	0.105	
HEICD - BZ	0.028		0.058	
HEICD - AGE	0.289	***	0.173	*
HEICD - GRTH	-0.308	***	-0.318	***
HEICD - SIZE	0.377	***	0.226	**
HEICD - ROE	-0.462	***	-0.481	***
FLEICD - EICWC	0.645	***	0.555	***
FLEICD - HHICD	0.283	***	0.338	***
FLEICD - FLHICD	0.162		0.160	
FLEICD - HICWC	0.309	***	0.343	***
FLEICD - PrID	0.245	**	0.129	
FLEICD - SHFL	0.076		-0.022	
FLEICD - SHIN	-0.043		0.069	
FLEICD - SHCN	0.200	*	0.156	
FLEICD - NACM	0.042		0.037	
FLEICD - RD	0.149		0.132	
FLEICD - BZ	0.108		0.164	
FLEICD - AGE	0.114		0.079	
FLEICD - GRTH	-0.184	*	-0.299	***
FLEICD - SIZE	0.154		0.235	**
FLEICD - ROE	-0.264	**	-0.384	***
EICWC - HHICD	0.299	***	0.290	***
EICWC - FLHICD	0.499	***	0.426	***
EICWC - HICWC	0.211	*	0.167	
EICWC - PrID	0.338	***	0.284	***
EICWC - SHFL	0.119		0.046	
EICWC - SHIN	-0.032		0.041	
EICWC - SHCN	-0.116		-0.108	
EICWC - NACM	0.142		0.091	
EICWC - RD	0.113		0.110	
EICWC - BZ	-0.011		-0.004	
EICWC - AGE	0.233	**	0.089	
EICWC - GRTH	-0.257	**	-0.353	***
EICWC - SIZE	0.293	***	0.179	*
EICWC - ROE	-0.348	***	-0.316	***
HHICD - FLHICD	0.711	***	0.705	***
HHICD - HICWC	0.855	***	0.839	***
HHICD - PrID	0.020		0.057	
HHICD - SHFL	0.094		0.060	
HHICD - SHIN	-0.018		0.013	
HHICD - SHCN	0.047		0.010	
HHICD - NACM	0.070		0.141	
HHICD - RD	-0.111		-0.111	
HHICD - BZ	0.016		0.012	
HHICD - AGE	0.082		0.047	
HHICD - GRTH	-0.198	*	-0.235	**
HHICD - SIZE	-0.006		0.154	
HHICD - ROE	-0.223	**	-0.291	***
FLHICD - HICWC	0.709	***	0.693	***
FLHICD - PrID	-0.101		-0.051	
FLHICD - SHFL	0.138		0.082	

Correlation Table

	Pearson		Spearman	
	r		rho	
FLHICD - SHIN	-0.079		-0.013	
FLHICD - SHCN	0.110		0.100	
FLHICD - NACM	0.086		0.140	
FLHICD - RD	-0.051		-0.065	
FLHICD - BZ	-0.040		-0.049	
FLHICD - AGE	0.185	*	0.106	
FLHICD - GRTH	-0.243	**	-0.203	*
FLHICD - SIZE	0.104		0.078	
FLHICD - ROE	-0.270	**	-0.262	**
HICWC - PrID	0.040		0.076	
HICWC - SHFL	0.076		0.050	
HICWC - SHIN	-0.006		0.023	
HICWC - SHCN	0.068		0.056	
HICWC - NACM	0.006		0.095	
HICWC - RD	-0.092		-0.074	
HICWC - BZ	0.010		0.015	
HICWC - AGE	0.059		0.037	
HICWC - GRTH	-0.220	**	-0.155	
HICWC - SIZE	-0.047		0.089	
HICWC - ROE	-0.220	**	-0.261	**
PrID - SHFL	-0.416	***	-0.408	***
PrID - SHIN	0.295	***	0.267	**
PrID - SHCN	-0.007		-0.008	
PrID - NACM	-0.318	***	-0.163	
PrID - RD	-0.244	**	-0.238	**
PrID - BZ	-0.060		0.019	
PrID - AGE	-0.232	**	-0.118	
PrID - GRTH	0.228	**	0.232	**
PrID - SIZE	-0.290	***	0.011	
PrID - ROE	0.225	**	0.194	*
SHFL - SHIN	-0.843	***	-0.860	***
SHFL - SHCN	0.167		0.109	
SHFL - NACM	0.059		0.006	
SHFL - RD	0.049		0.047	
SHFL - BZ	-0.200	*	-0.212	*
SHFL - AGE	0.011		-0.053	
SHFL - GRTH	0.140		0.090	
SHFL - SIZE	-0.128		-0.248	**
SHFL - ROE	0.104		0.044	
SHIN - SHCN	-0.074		-0.009	
SHIN - NACM	0.037		0.105	
SHIN - RD	0.012		0.019	
SHIN - BZ	0.224	**	0.242	**
SHIN - AGE	-1.603e-4		0.060	
SHIN - GRTH	-0.141		-0.117	
SHIN - SIZE	0.125		0.343	***
SHIN - ROE	-0.087		-0.046	
SHCN - NACM	-0.007		-0.044	
SHCN - RD	-0.032		-0.032	
SHCN - BZ	-0.035		-0.027	
SHCN - AGE	0.086		0.101	
SHCN - GRTH	0.005		0.114	
SHCN - SIZE	-0.132		-0.033	
SHCN - ROE	0.017		0.062	
NACM - RD	0.231	**	0.122	
NACM - BZ	0.170	*	0.162	
NACM - AGE	0.197	*	0.151	

Correlation Table

		Pearson r		Spearman rho	
NACM	- GRTH	-0.181	*	-0.261	**
NACM	- SIZE	0.602	***	0.477	***
NACM	- ROE	-0.132		-0.148	
RD	- BZ	0.268	**	0.261	**
RD	- AGE	0.067		0.042	
RD	- GRTH	-0.248	**	-0.312	***
RD	- SIZE	0.252	**	0.187	*
RD	- ROE	-0.106		-0.048	
BZ	- AGE	0.007		0.008	
BZ	- GRTH	-0.217	*	-0.154	
BZ	- SIZE	0.170	*	0.280	***
BZ	- ROE	-0.133		-0.060	
AGE	- GRTH	-0.040		-0.116	
AGE	- SIZE	0.192	*	0.043	
AGE	- ROE	-0.077		-0.146	
GRTH	- SIZE	-0.262	**	-0.633	***
GRTH	- ROE	0.766	***	0.643	***
SIZE	- ROE	-0.191	*	-0.413	***

* p < .05, ** p < .01, *** p < .001

Table 4. Descriptive (Untransformed)

Variable	Mean	StDev	Minimum	Median	Maximum	Skewness	Kurtosis
ICDI	0,17728	0,03908	0,06202	0,18605	0,29457	-0,27	1,00
FICD	334,7	128,7	54,0	308,0	764,0	0,71	0,75
HICD	720,8	266,8	108,0	668,0	1528,0	0,41	0,11
WCIC	2175,1	795,5	324,0	2016,0	4584,0	0,39	0,06
IICDI	0,18027	0,04850	0,06977	0,18605	0,30233	0,11	-0,21
EICDI	0,20183	0,05483	0,04651	0,20930	0,32558	-0,49	0,57
HICDI	0,15040	0,05321	0,04651	0,13953	0,30233	0,77	0,68
HIICD	283,9	141,4	43,0	267,0	764,0	0,83	0,67
FIICD	140,89	70,56	32,00	130,00	382,00	0,93	0,65
IICWC	822,1	444,1	111,0	745,0	2292,0	0,80	0,48
HEICD	214,94	115,55	23,00	197,00	650,00	1,25	2,09
FLEICD	106,25	58,08	15,00	94,00	303,00	1,38	1,94
EICWC	649,2	335,1	48,0	545,0	1950,0	1,38	2,00
HHICD	208,15	100,19	4,00	200,00	553,00	0,88	0,90
FLHICD	118,36	57,99	11,00	111,00	341,00	0,99	1,89
HICWC	660,0	335,3	88,0	601,0	1842,0	0,73	0,33
PrID	0,3802	0,1818	0,0000	0,4000	0,8330	-0,40	0,11
SHCN	0,9197	0,2727	0,0000	1,0000	1,0000	-3,12	7,87
NACM	5,679	2,036	3,000	5,000	13,000	1,46	1,90
RD	0,3139	0,4658	0,0000	0,0000	1,0000	0,81	-1,36
BZ	10,993	2,375	4,000	11,000	16,000	-0,15	0,06
SHFL	54,04	19,07	0,00	54,93	88,63	-0,74	0,31
SHIN	27,71	14,26	0,02	26,19	87,13	0,75	1,35
AGE	48,92	27,03	3,00	48,00	124,00	0,69	-0,20
GRTH	5,030	5,971	0,000	3,331	40,372	3,33	14,08
SIZE	56182	114707	56	6300	627037	2,90	8,61
ROE	19,63	17,95	-37,60	16,32	131,80	2,32	13,26

Table 5. Variance inflation factor

	VIF	Tolerance
PrID	1.60	0.624
SHFL	4.27	0.234
SHIN	3.73	0.268
AGE	1.11	0.902
GRTH	2.80	0.357
SIZE	1.96	0.511
ROE	2.53	0.395
SHCN	1.07	0.933
NACM	1.71	0.584
RD	1.22	0.820
BZ	1.18	0.848

Table 6

Test of Normality (Shapiro-Wilk)

	W	p
ICDI	0.969	0.003
IICDI	0.976	0.015
EICDI	0.956	< .001
HICDI	0.939	< .001
FICDI	0.962	< .001
HICDI_23	0.980	0.042
WCIC	0.980	0.038
HIICD	0.956	< .001
FIICD	0.931	< .001
IICWC	0.952	< .001
HEICD	0.913	< .001
FLEICD	0.884	< .001
EICWC	0.883	< .001
HHICD	0.951	< .001
FLHICD	0.950	< .001
HICWC	0.959	< .001
PrID	0.960	< .001
SHFL	0.952	< .001
SHIN	0.968	0.003
AGE	0.943	< .001
GRTH	0.652	< .001
SIZE	0.542	< .001
ROE	0.808	< .001
SHCN	0.301	< .001
NACM	0.813	< .001
RD	0.584	< .001
BZ	0.975	0.013

Note. Significant results suggest a deviation from normality.

Table 7

Descriptive (Transformed)

Variable	Mean	StDev	Minimum	Median	Maximum	Skewness	Kurtosis
ICDI	0,17788	0,03851	0,08000	0,18000	0,28000	0,09	-0,15
FICDI	337,4	128,0	20,0	333,8	659,2	0,06	-0,20
HICDI	726,2	265,7	68,9	723,4	1432,3	0,08	-0,16
ICWC	3,3033	0,1828	2,8500	3,3000	3,7700	0,07	-0,20
IICDI	0,18027	0,04850	0,06977	0,18605	0,30233	0,11	-0,21
EICDI	0,20183	0,05483	0,04651	0,20930	0,32558	-0,49	0,57
HICDI	0,15040	0,05321	0,04651	0,13953	0,30233	0,77	0,68
HIICD	286,7	140,2	-60,4	285,3	653,2	0,08	-0,17
FIICD	142,37	70,22	-31,42	141,65	327,12	0,08	-0,17
IICWC	2,8549	0,2602	2,2100	2,8500	3,5100	0,06	-0,20
HEICD	217,15	115,18	-68,29	216,06	510,12	0,07	-0,20
FLEICD	106,86	57,18	-35,89	108,13	247,89	0,02	-0,29
EICWC	2,7690	0,2419	2,2100	2,7600	3,9800	0,84	3,62
HHICD	210,13	100,00	-36,22	207,09	498,22	0,12	-0,06
FLHICD	119,33	58,30	-23,65	119,06	299,54	0,16	0,07
HICWC	2,7647	0,2465	2,1500	2,7600	3,3900	0,07	-0,19
PrID	0,3802	0,1818	0,0000	0,4000	0,8330	-0,40	0,11
SHCN	0,9197	0,2727	0,0000	1,0000	1,0000	-3,12	7,87
NACM	5,679	2,036	3,000	5,000	13,000	1,46	1,90
RD	0,3139	0,4658	0,0000	0,0000	1,0000	0,81	-1,36
BZ	10,993	2,375	4,000	11,000	16,000	-0,15	0,06
SHFL	54,04	19,07	0,00	54,93	88,63	-0,74	0,31
SHIN	27,71	14,26	0,02	26,19	87,13	0,75	1,35
AGE	48,92	27,03	3,00	48,00	124,00	0,69	-0,20
GRTH	5,030	5,971	0,000	3,331	40,372	3,33	14,08
SIZE	3,9677	0,8822	1,7490	3,7993	5,7973	0,22	-0,71
ROE	19,63	17,95	-37,60	16,32	131,80	2,32	13,26

Regression tables

Table 8

Model Fit Measures for ICDI

				Overall Model Test			
Model	R	R^2	Adjusted R^2	F	df1	df2	p
ICDI	0.675	0.456	0.408	9.52	11	125	< .001
FICDI	0.564	0.319	0.259	5.31	11	125	< .001
HICDI	0.478	0.228	0.160	3.36	11	125	< .001
ICWC	0.531	0.282	0.218	4.45	11	125	< .001

Model Coefficients for ICDI

Predictor	Estimate	SE	Stand. Estimate	t	p
Intercept	0.05284	0.03159		1.672	0.097
PrID	0.04468	0.01769	0.2109	2.525	0.013
SHFL	7.19e-4	2.75e-4	0.3558	2.609	0.010
SHIN	9.13e-4	3.44e-4	0.3382	2.655	0.009
AGE	5.45e-4	9.90e-5	0.3828	5.511	< .001
GRTH	4.40e-4	7.12e-4	0.0682	0.618	0.538
SIZE	-0.01265	0.00403	-0.2897	-3.138	0.002
ROE	4.81e-4	2.25e-4	0.2240	2.133	0.035
SHCN	0.01924	0.00964	0.1363	1.995	0.048
NACM	0.00540	0.00163	0.2857	3.310	0.001
RD	-0.01349	0.00603	-0.1631	-2.238	0.027
BZ	0.00106	0.00116	0.0652	0.910	0.365

Model coefficients for FICDI

Predictor	Estimate	SE	Stand. Estimate	t	p
Intercept	-73.061	117.545		-0.6216	0.535
PrID	13.247	65.829	0.01881	0.2012	0.841
SHFL	3.394	1.025	0.50544	3.3119	0.001
SHIN	3.135	1.280	0.34920	2.4500	0.016
AGE	1.449	0.368	0.30595	3.9363	< .001
GRTH	-0.864	2.649	-0.04030	-0.3262	0.745
SIZE	11.103	14.996	0.07651	0.7404	0.460
ROE	-1.722	0.838	-0.24139	-2.0540	0.042
SHCN	101.770	35.883	0.21680	2.8362	0.005
NACM	-4.876	6.073	-0.07755	-0.8028	0.424
RD	-15.667	22.418	-0.05699	-0.6988	0.486
BZ	-0.246	4.323	-0.00457	-0.0570	0.955

Model Coefficients for HICDI

Predictor	Estimate	SE	Stand. Estimate	t	p
Intercept	230.64	259.673		0.888	0.376
PrID	92.34	145.426	0.0632	0.635	0.527
SHFL	6.89	2.264	0.4942	3.042	0.003
SHIN	6.95	2.827	0.3727	2.457	0.015
AGE	2.24	0.813	0.2276	2.752	0.007
GRTH	1.04	5.851	0.0234	0.178	0.859
SIZE	11.45	33.128	0.0380	0.346	0.730
ROE	-5.47	1.852	-0.3698	-2.956	0.004
SHCN	-159.72	79.270	-0.1639	-2.015	0.046
NACM	-11.80	13.417	-0.0904	-0.880	0.381
RD	-11.27	49.525	-0.0198	-0.228	0.820
BZ	5.51	9.551	0.0492	0.577	0.565

Model Coefficients for ICWC

Predictor	Estimate	SE	Stand. Estimate	t	p
Intercept	2.92070	0.17230		16.9515	< .001
PrID	0.05823	0.09649	0.05790	0.6034	0.547
SHFL	0.00462	0.00150	0.48250	3.0790	0.003
SHIN	0.00486	0.00188	0.37890	2.5889	0.011
AGE	0.00127	5.40e-4	0.18832	2.3596	0.020
GRTH	2.53e-4	0.00388	0.00828	0.0652	0.948
SIZE	0.01470	0.02198	0.07094	0.6687	0.505
ROE	-0.00442	0.00123	-0.43441	-3.6000	< .001
SHCN	-0.08420	0.05260	-0.12565	-1.6008	0.112
NACM	-0.00431	0.00890	-0.04807	-0.4847	0.629
RD	-0.01908	0.03286	-0.04862	-0.5806	0.563
BZ	0.00444	0.00634	0.05768	0.7005	0.485

Table 10

Model Fit Measures

				Overall Model Test			
Model	**R**	**R^2**	**Adjusted R^2**	**F**	**df1**	**df2**	**p**
HIICD	0.414	0.171	0.0984	2.35	11	125	0.011
FIICD	0.383	0.146	0.0713	1.95	11	125	0.039
IICWC	0.415	0.173	0.0998	2.37	11	125	0.011

Model Coefficients for HIICD

Predictor	Estimate	SE	Stand. Estimate	t	p
Intercept	-57.575	140.929		-0.4085	0.684
PrID	124.747	78.925	0.16169	1.5806	0.117
SHFL	3.206	1.229	0.43597	2.6096	0.010
SHIN	2.044	1.534	0.20783	1.3320	0.185
AGE	0.756	0.441	0.14578	1.7134	0.089
GRTH	1.712	3.176	0.07290	0.5391	0.591
SIZE	1.308	17.979	0.00823	0.0728	0.942
ROE	-2.993	1.005	-0.38311	-2.9781	0.003
SHCN	10.522	43.021	0.02047	0.2446	0.807
NACM	-8.450	7.282	-0.12271	-1.1605	0.248
RD	5.746	26.878	0.01909	0.2138	0.831
BZ	10.132	5.183	0.17160	1.9547	0.053

Model Coefficients for FIICD

Predictor	Estimate	SE	Stand. Estimate	t	p
Intercept	16.044	72.158		0.2223	0.824
PrID	106.697	40.411	0.27616	2.6403	0.009
SHFL	1.285	0.629	0.34901	2.0433	0.043
SHIN	0.618	0.786	0.12543	0.7863	0.433
AGE	0.322	0.226	0.12384	1.4235	0.157
GRTH	-0.636	1.626	-0.05408	-0.3911	0.696
SIZE	-7.862	9.206	-0.09876	-0.8540	0.395
ROE	-1.122	0.515	-0.28690	-2.1813	0.031
SHCN	-4.982	22.028	-0.01935	-0.2262	0.821
NACM	-0.516	3.728	-0.01496	-0.1384	0.890
RD	0.902	13.762	0.00599	0.0656	0.948

Model Coefficients for FIICD

Predictor	Estimate	SE	Stand. Estimate	t	p
BZ	4.283	2.654	0.14485	1.6138	0.109

Model Coefficients for IICWC

Predictor	Estimate	SE	Stand. Estimate	t	p
Intercept	2.22654	0.26329		8.457	< .001
PrID	0.22065	0.14745	0.1541	1.496	0.137
SHFL	0.00513	0.00230	0.3759	2.235	0.027
SHIN	0.00330	0.00287	0.1808	1.151	0.252
AGE	0.00156	8.25e-4	0.1619	1.890	0.061
GRTH	0.00327	0.00593	0.0749	0.550	0.583
SIZE	0.00820	0.03359	0.0278	0.244	0.808
ROE	-0.00548	0.00188	-0.3779	-2.918	0.004
SHCN	-0.01506	0.08038	-0.0158	-0.187	0.852
NACM	-0.00849	0.01360	-0.0665	-0.624	0.533
RD	-0.01124	0.05022	-0.0201	-0.224	0.823
BZ	0.02035	0.00968	0.1857	2.102	0.038

Table 11.

Model fit measures

Model	R	R^2	Adjusted R^2	F	df1	df2	p
HEICD	0.582	0.339	0.281	5.83	11	125	< .001
FLEICD	0.425	0.181	0.109	2.51	11	125	0.007
EICWC	0.507	0.257	0.192	3.94	11	125	< .001

Model Coefficients for HEICD

			95% Confidence Interval				
Predictor	Estimate	SE	Lower	Upper	Stand. Estimate	t	p
Intercept	143.825	104.134	-62.2704	349.92		1.381	0.170
PrID	-83.362	58.319	-198.7821	32.06	-0.1315	-1.429	0.155
SHFL	1.188	0.908	-0.6090	2.98	0.1966	1.308	0.193
SHIN	2.477	1.134	0.2336	4.72	0.3067	2.185	0.031

Model Coefficients for HEICD

			95% Confidence Interval				
Predictor	**Estimate**	**SE**	**Lower**	**Upper**	**Stand. Estimate**	**t**	**p**
AGE	0.734	0.326	0.0885	1.38	0.1722	2.250	0.026
GRTH	2.475	2.347	-2.1690	7.12	0.1283	1.055	0.294
SIZE	10.359	13.285	-15.9338	36.65	0.0793	0.780	0.437
ROE	-3.312	0.743	-4.7814	-1.84	-0.5161	-4.460	< .001
SHCN	-16.812	31.789	-79.7265	46.10	-0.0398	-0.529	0.598
NACM	-1.011	5.380	-11.6597	9.64	-0.0179	-0.188	0.851
RD	12.116	19.861	-27.1909	51.42	0.0490	0.610	0.543
BZ	-3.172	3.830	-10.7519	4.41	-0.0654	-0.828	0.409

Model Coefficients for FLEICD

			95% Confidence Interval				
Predictor	**Estimate**	**SE**	**Lower**	**Upper**	**Stand. Estimate**	**t**	**p**
Intercept	38.539	57.551	-75.3606	152.4389		0.670	0.504
PrID	-25.000	32.230	-88.7879	38.7875	-0.0795	-0.776	0.439
SHFL	0.713	0.502	-0.2802	1.7058	0.2377	1.421	0.158
SHIN	0.615	0.627	-0.6248	1.8553	0.1534	0.982	0.328
AGE	0.265	0.180	-0.0914	0.6221	0.1254	1.472	0.144
GRTH	0.931	1.297	-1.6357	3.4975	0.0972	0.718	0.474
SIZE	14.251	7.342	-0.2799	28.7820	0.2199	1.941	0.055
ROE	-0.830	0.410	-1.6424	-0.0180	-0.2606	-2.023	0.045
SHCN	-39.953	17.568	-74.7233	-5.1831	-0.1906	-2.274	0.025
NACM	-4.919	2.974	-10.8043	0.9656	-0.1752	-1.654	0.101
RD	4.070	10.976	-17.6534	25.7931	0.0332	0.371	0.711
BZ	2.525	2.117	-1.6646	6.7140	0.1049	1.193	0.235

Model Coefficients for EICWC

			95% Confidence Interval				
Predictor	**Estimate**	**SE**	**Lower**	**Upper**	**Stand. Estimate**	**t**	**p**
Intercept	2.58724	0.23190	2.12828	3.04620		11.157	< .001
PrID	-0.19860	0.12987	-0.45563	0.05844	-0.1492	-1.529	0.129
SHFL	0.00417	0.00202	1.72e-4	0.00817	0.3289	2.064	0.041
SHIN	0.00411	0.00252	-8.85e−4	0.00911	0.2424	1.629	0.106
AGE	0.00122	7.26e-4	-2.22e−4	0.00265	0.1358	1.673	0.097

Model Coefficients for EICWC

			95% Confidence Interval				
Predictor	Estimate	SE	Lower	Upper	Stand. Estimate	t	p
GRTH	0.00251	0.00523	-0.00783	0.01285	0.0619	0.480	0.632
SIZE	0.04317	0.02959	-0.01538	0.10173	0.1574	1.459	0.147
ROE	-0.00465	0.00165	-0.00792	-0.00137	-0.3448	-2.810	0.006
SHCN	-0.10345	0.07079	-0.24356	0.03666	-0.1166	-1.461	0.146
NACM	-0.00761	0.01198	-0.03133	0.01610	-0.0641	-0.635	0.526
RD	0.02299	0.04423	-0.06454	0.11053	0.0443	0.520	0.604
BZ	-0.00939	0.00853	-0.02627	0.00749	-0.0922	-1.101	0.273

Table 12

Model Fit Measures

				Overall Model Test			
Model	R	R^2	Adjusted R^2	F	df1	df2	p
HHICD	0.414	0.171	0.0984	2.35	11	125	0.011
FLHICD	0.416	0.173	0.101	2.38	11	125	0.010
HICWC	0.403	0.163	0.0891	2.21	11	125	0.018

Model Coefficients HHICD

				95% Confidence Interval				
Model	Predictor	Estimate	SE	Lower	Upper	Stand. Estimate	t	p
1	Intercept	-25.783	101.248	-226.166	174.600		-0.255	0.799
	PrID	129.372	56.702	17.151	241.593	0.2351	2.282	0.024
	SHFL	2.550	0.883	0.803	4.297	0.4862	2.889	0.005
	SHIN	1.784	1.102	-0.397	3.966	0.2544	1.619	0.108
	AGE	0.397	0.317	-0.231	1.025	0.1073	1.251	0.213
	GRTH	-3.461	2.282	-7.976	1.055	-0.2066	-1.517	0.132
	SIZE	4.809	12.917	-20.755	30.373	0.0424	0.372	0.710
	ROE	-0.804	0.722	-2.232	0.625	-0.1442	-1.113	0.268
	SHCN	-20.013	30.908	-81.183	41.158	-0.0546	-0.647	0.519
	NACM	2.140	5.231	-8.213	12.493	0.0436	0.409	0.683
	RD	-44.999	19.310	-83.217	-6.782	-0.2096	-2.330	0.021
	BZ	1.321	3.724	-6.049	8.691	0.0314	0.355	0.723

Model Coefficients FLHICD

Model	Predictor	Estimate	SE	95% Confidence Interval		Stand. Estimate	t	p
				Lower	Upper			
1	Intercept	35.469	58.952	-81.20513	152.142		0.6017	0.548
	PrID	38.129	33.015	-27.21190	103.470	0.11887	1.1549	0.250
	SHFL	1.060	0.514	0.04313	2.077	0.34677	2.0630	0.041
	SHIN	0.639	0.642	-0.63080	1.910	0.15640	0.9963	0.321
	AGE	0.368	0.185	0.00225	0.733	0.17047	1.9913	0.049
	GRTH	-2.172	1.328	-4.80071	0.458	-0.22242	-1.6347	0.105
	SIZE	0.577	7.521	-14.30757	15.462	0.00873	0.0768	0.939
	ROE	-0.507	0.420	-1.33884	0.325	-0.15607	-1.2058	0.230
	SHCN	7.358	17.996	-28.25888	42.975	0.03442	0.4089	0.683
	NACM	1.057	3.046	-4.97150	7.085	0.03691	0.3470	0.729
	RD	-17.412	11.244	-39.66429	4.840	-0.13911	-1.5486	0.124
	BZ	-1.125	2.168	-5.41659	3.166	-0.04584	-0.5190	0.605

Model Coefficients HICWC

Predictor	Estimate	SE	95% Confidence Interval		Stand. Estimate	t	p
			Lower	Upper			
Intercept	2.26902	0.25082	1.77261	2.76543		9.0463	< .001
PrID	0.32371	0.14047	0.04571	0.60172	0.23872	2.3045	0.023
SHFL	0.00585	0.00219	0.00152	0.01018	0.45278	2.6765	0.008
SHIN	0.00479	0.00273	-6.17e−4	0.01019	0.27700	1.7532	0.082
AGE	9.18e-4	7.86e-4	-6.37e−4	0.00247	0.10064	1.1681	0.245
GRTH	-0.01134	0.00565	-0.02253	-1.56e−4	-0.27479	-2.0067	0.047
SIZE	-0.00318	0.03200	-0.06651	0.06015	-0.01138	-0.0993	0.921
ROE	-0.00163	0.00179	-0.00517	0.00191	-0.11848	-0.9095	0.365
SHCN	-0.01391	0.07657	-0.16545	0.13762	-0.01540	-0.1817	0.856
NACM	-7.89e−4	0.01296	-0.02644	0.02486	-0.00651	-0.0608	0.952
RD	-0.08408	0.04784	-0.17876	0.01060	-0.15890	-1.7576	0.081
BZ	0.00218	0.00923	-0.01608	0.02044	0.02101	0.2364	0.814

APPENDIX

Table 1. Classification of Intellectual Capital forms

IC Form	Measures
Internal Intellectual capital	Intellectual property (patents, copyrights, Trademarks) Management Process (flexibility, structure, overall learning process) Corporate culture Research & development (R&D), Innovation Customer support function Information -based infrastructure Accreditations (certificate) Technology and Overall infrastructure capabilities Networking systems Quality management & improvement.
External Intellectual capital	Customers Investors relationships Financial Contracts Customer Management (acquisition, relationships, involvement, and retention) Customer training & education (CTE) Company image/ reputation Company awards Public relation Brands Distribution channels Relationship with suppliers Business collaboration Business agreements Competitive contract Research and Development collaboration Market leadership
Human capital	Employee count Employee age Employee diversity, Employee equality Employee relationship, Employee teamwork Employee education Skills/know-how, Employee capabilities Employee work-related competences Employee work-related knowledge Employee attitudes/behavior, Employee motivation Employee commitments Employee productivity

	Employee training, Employee development Vocational qualifications Employee flexibility Entrepreneurial spirit Employee involvement with community, Other employee features
Time horizons	Historical Intellectual Capital Disclosure
	Forward looking Intellectual Capital Disclosure

The effect of corporate governance on impression management within chairmen letter of Indian listed companies

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Abstract

Accounting narratives is one of the valuable communication tool for the management to provide extensive information that supports the financial statement of the company and thus elaborates more on its performances. If used opportunistically by the management of the firm, it may lead to inaccurate perception of the firm performance leading to misappropriation of capital. We estimate corporate governance as a critical mechanism that may control such practices and encourage more of the neutral and balanced reporting for the corporates. We analyze 85 Indian listed firms accounting narrative in the form of chairperson letter to identify the link between various impression management techniques and the corporate governance variables along with identified control variables. The result establishes that efficient governance does discourages Impression management especially the thematic analyses and does have limited control over quantitative aspects of Impression management. This result holds for the accounting narrative of chairman letter and encourages for further reporting analyses.

Introduction

The purpose of this paper is to identify the presence of self-serving disclosure practices in the Chairman's letter of the annual reports and establish the effect of Corporate Governance in order to control such practices. The Chairman's letter is a crucial narrative disclosure strategy (Jones, 1988; Clatworthy and Jones, 2003, 2006) between organizations and stakeholders (Bartlett & Chandler 1997; Healy & Palepu 2001) and has been under investigation in numerous studies (Courtis, 2004; Clatworthy and Jones; 2003), yet the association with the Corporate Governance mechanism and this disclosure form is barely explored (Mather and Ramsay, 2007).

Corporate narrative documents are considered potential impression management vehicles, which can be used by managers to present a self-interested view of corporate performance (Bettman and Weitz, 1983; Staw *et al.*, 1983; Abrahamson and Park, 1994; Beattie and Jones, 2000; Clatworthy and Jones, 2006; Mather *et al.*, 2000). Many researchers have worked in past decades to clarify the strategies adopted for preparation of those documents (e.g. Bettman & Weitz 1983; Dierkes & Antal 1986; Neuet al. 1998; Prestonet al. 1996). However, the effects of any controlling measures in the form of Corporate Governance is barely documented (Mather and Ramsay 2007). Recent reports focusing on corporate governance in listed companies include Cadbury (1992), Blue Ribbon Committee (1999) and the ASX Corporate Governance Council (2003). As the recommendations of the corporate governance codes impose implementation costs on companies, it is considered useful to examine empirically the efficacy of some of the regulators' recommendations (Mather and Ramsay 2007) with respect to the Impression Management practices adopted by the Management.

The increasing relevancy of the narrative sections in corporate communications allows the organizations and provides them a platform to reduce the information asymmetries, channeling the information that is explained in detailed manner, and providing a better informed decision making process. Meanwhile, they also serve as a tool at the disposal of management to present the financial and other such performance related information which highlights their performance in the best possible manner working to the contrary of its original intention. As Holthausen,(1990) stated incremental disclosures furnishes information of future cash flows and other such value creating inputs thus resulting better and informed decision making, on the contrary, impression management results in potential capital misallocations.

While it is based on the assumption that the investors are unable to gauge the Impression management tactics used by the managers. Due to which, managerial bias is very much effective in affecting the share price movements leading further capital misallocations consequently, improved remunerative conditions for the senior managers (Rutherford, 2003 and Courtis, 2004a, p. 293). Developing a set of hypotheses on investors' reaction, towards specific form of impression management by means of public presentations of overall strategy by Chief Executive Officers (CEOs), Whittington et al (2016) suggest that such strategy presentations exhibit valuable information to investors, specifically in conditions of increased information asymmetry linked with different types of new CEOs. Hadro et al (2017) using k-means clustering displayed the more concentrated ownership is, management invest less effort in communicating with investors, contrary to impression management practices. While, companies controlled by foreign shareholders prepare letters that are longer and which are more likely to present defensive arguments.

Since, corporate narratives are mostly unregulated, apart from providing the management an opportunity of discretionary disclosure it also encourages the ground for Impression Management. Yang et al (2017), demonstrates that firms present themselves on social media opportunistically to construct a positive public image. By minimizing the disclosures of negative information but employ various patterns and dissemination techniques to emphasize positive information. Consequently, there could be further implication on social and political grounds for the organization from impression management in the form of dwindling support and alliances and further its functionality from the entire stakeholder involved and thus at large with society. Benson et al (2015) finds that entrepreneurs are less likely to apply camouflage during times of high scrutiny, as analyzed by industry analyst following, industry concentration levels, and IPO clustering. The authors also suggest that greater use of camouflage is associated with raising more capital, due to both greater offer proceeds as well as less underpricing. Hence, the implications for the impression management are very important from legal and corporate governance perspectives.

The managerial impression management techniques being viewed from the perspective of economic and social psychology are more importantly focusing towards managing perceptions and opinions of shareholder's and thus other important stakeholders with overall performance of the firm especially financial performance and thus leading to short term capital misallocation (Merkl-Davies and Brennan, 2007). Rhetorical impression management is stronger in the US companies, but higher expected scrutiny in the US institutional environment affects sensitivity of rhetorical postures (Aerts et al, 2016) to message credibility and litigation risk, attenuating the acclaiming and rationalizing profile, while marginally increasing the less litigation-sensitive defensive framing style in US letters. Thus, when discretionary accounting narratives are used for the impression management motivations then the purpose of narratives will be distorted resulting inappropriate capital allotment. As Healy and Wahlen (1999, p. 368) stated Impression management, in line with earnings management, necessitate "managers using judgment in financial reporting to alter financial reports to mislead some stakeholders about the underlying economic performance of the company". Hence, impression management like earnings management necessitates the adverse risk of inappropriate capital allocation.

The managerial bias strategy motivated by impression management in the form of discretionary disclosures is established on fragile market productivity. According to Ginzel et al (2004), the reciprocal mechanism between the managers and the readers can be drawn upon the stream of social psychology. In the same vein, (Merkl-Davies and Brennan 2011, p. 425) stated "Impression management is embedded in and dependent on management's relationship with organizational audiences''. Thus, it is radically intertwined amid management and its various stakeholders. The definition of Impression management provided by Hooghiemstra [2000, p. 60] as "a field of study within social psychology studying how individuals present themselves to others to be perceived favorably by others."

The impression management studies primarily concentrated on earnings management (Schipper, 1989), however gradually it has garnered consideration and has moved the areas of research on various other accounting issues like graphs (Beattie and Jones, 1999), photographs (e.g. Graves et al., 1996; McKinstry, 1996) and accounting narratives (Aerts, 1994, 2001; Courtis, 1998).

In accounting narratives perspectives impression management is termed to be a concerted effort as precisely pointed by Clatworthy and Jones, (2001, p. 311) "to control and manipulate the impression conveyed to users of accounting information". Thus, managers are supposedly, using annual reports as a tool for impression management in order to maneuver the judgement and thus the decisions of stakeholders in a very calculative manner (Yuthas et al., 2002). These statements inherently conclude that managers intentionally employ impression management techniques.

Research in the past focusing on the quality of the financial reporting specifically outlined issues like fraud (Rezaee, 2005) and earnings management (Burgstahler and Eames, 2006). Meanwhile, there is an increasing trend with respect to the Impression management literatures, considering firms have gradually started distorting reader's perception with respect to its performance by using various subtle forms of impression management techniques could in the form of content manipulation or by presenting information with a purpose to manage the perception of the stakeholders (Godfrey et al., 2003).

Despite its growing relevance, research for impression management remains in its infancy stage. Specifically, if we analyze with respect to the efforts and number of research being carried out on financial and other accounting issues. The importance for Impression management research increases many folds considering the fact that there is an increasing trend among the corporate to use unregulated accounting narratives on a massive scale. The accounting narratives used in this paper focusing impression management is the Chairman's letter to the shareholder in the Indian companies. The chairman's letter also known as chairman's statement or chairman's address is an ubiquitous and popular part of the annual report. It is generally used to furnish synopsis about the firms overall performance and activities critical during the year and for the future. The chairman's letter is particularly interesting considering its popularity and its comprehensiveness couple with its unregulated and unaudited features.

According to Bartlett and Chandler (1997) among the narratives of the annual report, Chairman Letter is the most read section of the accounting narratives and its one of the most popular part of annual report among the shareholders universally (Courtis 1986, Subramanian et al 1993). Its importance is also evident from the various research being carried out on behalf of narratives (Courtis 1986, Jones 1988, Subramanian et al 1993, Courtis 1998, Clatworthy and Jones 2001). Meanwhile, Abrahamson and Amir (1996) in their empirical analyses of earnings and share price data argues, the president's letter hold effective clues with respect to the company's future endeavors. Chairman's letter is also termed to be the most influential source of information to financial analyst and institutional investors after the financial statements (Arnold and Moizer,

1984). Chairman's letter is also termed to demonstrate and of high predictive nature of the firms bankruptcy likeliness (Smith and Taffler, 2000). Even cosmopolitan investors like those of corporate investors and investment advisor demonstrate that the accounting narratives are influential in investment decision (Lee and Tweedie, 1981).

The psychologist initiated the evolutionary work on the topic of impression management (Schelenker 1980). Soon afterwards, Impression management found its way to numerous accounting and other business related streams which may include but not limited to environmental and social accounting (Neu et al., 1998; Hooghiemstra, 2000), self-presentation (Gardner and Martinko, 1988), manipulation of earnings by managers (Griffiths, 1986; Tweedie and Whittington, 1990), and corporate structural changes (Arndt and Bigelow, 2000).

Surprisingly, only a few recent studies focus on impression management through accounting narratives such as the chairman's statement (Smith and Taffler, 1992, 2000; and Aerts, 1994, 2001). To the best of our knowledge, there is only one prior paper looking at the impact of corporate governance on impression management. Mather and Ramsay (2007) study the association between board independence and disclosure practices in Australia. They find evidence of lower impression management in the presence of stronger boards. Along with the Osma and Guillamón-Saorín (2011) wherein they studied different form of impression management (narrative disclosures of both quantitative and qualitative financial information) in annual result press releases of the Spanish firms.

The study summarizes its findings based on the sample collected from 85 Indian Listed firms. We specifically focus on the relationship between corporate governance mechanism and voluntary or unregulated discretionary disclosure in the form of Impression management. The study is carried on the accounting narrative in the form of chairperson's statement (letter) to the shareholders in the annual report of the chosen companies. Various mechanism of corporate governance is chosen in the light of previous literatures for the study and for measuring the Impression management; we follow the methodology Tran-scripted by Brennan, Guillamon-Saorin, and Pierce (2009) in the form of disclosure tone, emphasis, performance comparisons; and selectivity in chairperson's statement.

Manual content analysis is being used to in order to measure the various Impression management technique as being used by various previous literatures (Salancik and Meindl, 1984; Courtis, 1986; Jones, 1988; Clatworthy and Jones, 2003). Once captured the measurements are further quantified to arrive at an individual score for each category of the Impression management identified. Which is further tested with the corporate governance variables using the multiple regression in order to determine the association between the various components of corporate governance and the Impression management individual scores. The findings clearly demonstrate the direct association with various corporate governance mechanism identified in this analysis especially from the qualitative point of view. Thus, contributing towards the agency theory, and signaling theory this paper could be of value to policy makers, investors, managers and regulators alike.

The remainder of this paper is organized as follows; Section two describes the previous studies and the related literatures, section three is composed of various Corporate governance mechanism and measurement of Impression Management. While, methodology is discussed in section four. Section five, is discussed with detailed result for the analysis and the paper is finally summarized and concluded in section six.

Literature Review

Accounting narratives a phenomena introduced in 1973, by the American Institute of Certified Public Accountants which states (AICPA: 13): 'Financial statements should not be limited solely to quantified information. Amplification, in narrative form, of data included in statements *may* be required'. Within a span of few decades, most of the annual reports contains extensive narratives. According to Jones (1996), narratives form an integral part of modern annual reports, while it also provides an equally crucial enhancement to the financial statements of these reports (Courtis 2002).

Past literatures have already confirmed that these narratives are crucial better understanding the health of the firm and thus its potential for financial performance in the future (Beynon et al., 2004) and if heading towards bankruptcy (Smith and Taffler, 1995, 2000). According to Courtis (1998: 459) Corporate annual reports dispense an all-inclusive reference of data on all corporate achievements and *"facilitate the confirmation, revision and formation of readers' expectations about a company in which they have an interest".* The narratives that are now endorsed by the regulatory authorities like Directors report, or management discussion and analysis in India are increasingly becoming a communication tool for their personal motivations, and they are one of the useful vehicles that corporates may use to draw attention of their existing and potential investors (Khanna and Irvine 2012). There is an increasing trend among the corporates to use annual reports and accounting narratives for marketing purposes and other such motivations apart from meeting their obligatory requirements (Clarke 1997).

Research on accounting narratives has increased exponentially, considering the fact that researchers are gradually convinced that the fluctuations of the share price due to the basic accounting represents a very small part (Cenesizoglu and Timmermann, 2008). Not surprisingly, Impression management represents a variety of accounting research issues for example: earnings manipulation (Watts and Zimmerman, 1990; Smith 1992), Photographs (McKinstry, 1996; Preston et al., 1996), the accounting profession (Neu and Wright, 1992), graphs (Beattie and Jones, 1992; 1998).

The transparency of the narratives in the annual reports are very crucial from non-financial investor's point of view (Rutherford 2003), considering the alarming rate of increase in the usage of these narratives (Courtis 1998) and the reliance of the naïve investors on these reports for their decision making. Narratives originally termed as supplying incremental information to enhance decision-making process, but it could very much be used for furnishing biased information with the purpose of Impression management (Merkl- Davies and Brennan, 2007). Naïve investors or non-financial users of the narratives will use the narratives as a basis or platform in order to cement their decision, especially when the accounting information or the numbers in the financial statements and the narratives of the performance or earnings provide information contrary to each other. Thus, there is an effort to mislead the investor with their judgement about the company and encouraging an inappropriate decision-making by the readers (Smith et al 2004).

Apart from being an important regulatory issue, Impression management has also serious implications on corporate governance. When management attempts impression management in either form has serious motivations to do so as Aerts (2001) notes that, the incentives are bigger especially for the listed corporates. The practice of impression management with the intention to portray their firms in the best possible light especially by representing 'selective financials' (Revsine, 1991) has numerous personal motivations which includes but not limited to increased remunerations and longer contracts within the firm along with the better goodwill in the market (e.g., DeAngelo, 1988.

As mentioned, the literature of accounting narratives is crucial part of the overall accounting literature and so its importance is very well documented. Epstein and Pava, (1993) provides evidence from US, while Anderson and Epstein, (1996) provides evidence from Australia and New Zealand, and Bartlett and Chandler, (1997) from UK. These studies demonstrates accounting narratives especially Chairman's letter crucial role from reader's point of view. As in the UK out of 17 sections of the annual report chairman's letter is ranked second and is the most read section of the report by the shareholders (Bartlett and Chandler, 1997). Studies also demonstrate how managers use the chairman's letter to conceal negative outcomes as Aerts (1994) in his study illustrates how managers use technical terms to furnish negative performance but use plain language for positive outcomes in the Belgian directors report. The study of accounting narratives is very well extended to interim reports and prospectuses (Courtis, 2004a), as rightly pointed by Gibbins and Pomeroy (2007) by referring it as an enhanced corporate reporting where in various disclosure media provides huge number of research opportunities which include but not limited to websites,

conference calls and other electronic media's used for communication.

Accounting narratives being not only important from the investor's point of view but it also provides management to present a coordinated, and the overall annual description of corporate financial performance. Although the accounting narratives including the chairman's letter are voluntary form of communication but is crucial in providing general idea about the corporate performance. Given the regulatory scenario and the bodies governing it, in India law suit action by shareholders is not very common like it is a practice in United states or other developed nation (Weetman, and Collins, 1996), allowing more liberal approach by the chairman in their statement and other such narratives.

Despite, US having reputation for providing a better regulatory platform and thus a greater control over the narratives (Bolger, 1994; Weetman and Collins, 1996), yet studies empirically tested and confirmed that the presidents letters has profound effects on the decision making process of the ground level investors. Thus, these studies contributes towards the propensity of such audiences and impression management within the parameters of cognitive limitations and factors affecting their decision making process, despite being any documentation of the short term and long term effects of Impression management.

The chairman's statement (also known as the chairman's address or the president's letter) is an almost universal, and widely read, feature of the annual report. Smith and Taffler (1995) show that the chairman's statement is a crucial index of financial performance, while both keywords and narrative themes in the chairman's statement are useful for discriminating between bankrupt and financially healthy firms (Smith and Taffler, 2000). In India, for example, auditors review the text to ensure that it is materially consistent with the financial statements. However, the exact nature of this review is currently unclear.

The chairman's statement has also been shown to influence investors' decision making (Staw et al., 1983; Kaplan et al., 1990; Abrahamson and Amir, 1996). Although such narratives may not necessarily provoke a direct share-price response (Holland, 1998), they can act to augment and contextualize other price-sensitive information. Such "framing" of accounting outcomes with narratives may also help to build investors' confidence in the company and lend credibility to management (Aerts, 2001, 2005). A number of prior studies demonstrate impression management in the chairperson's statement. Courtis (1998) argues that narratives can be obfuscatory by burying adverse or negative news through more difficult writing styles. He finds that the chairman's statements of companies with high press exposure are more difficult to read and have more variable readability scores than companies with low press coverage. Moreover, Breton and Taffler (2001) show that financial analysts rely on non-financial, qualitative and accounting narrative information when making stock recommendations which may be influenced through the use of impression management. Kohut and Segars (1992) investigate the president's letters of the top and bottom 25 US companies in the Fortune 500 ranked by return on equity (ROE).

Clatworthy and Jones (2001) find that very profitable companies are more inclined to discuss their results, acquisitions, and disposals, while very unprofitable companies include more discussion of board changes. The primary focus of Clatworthy and Jones (2001) is on the readability of the chairman's statement. Specifically, they examine how the coefficient of variation of readability is driven by the thematic content of the chairman's statement.

Research into impression management in the chairman's statement is important for a number of reasons. First, the chairman's statement is a component of the annual report used by investors (e.g. Jones, 1988; Courtis, 2004). Second, there is evidence that the content of the chairman's statement affects investors' decision-making, and potentially corporate value (Segars and Kohut, 2001). Third, even if investors and annual report users are not influenced by impression management in the chairman's statement, research into whether such strategies are employed in the writing of the chairman's statement may still be useful to provide an insight into whether managers believe impression management is worthwhile.

Impression Management

The accounting research encompasses various areas that covers the theoretical and practical aspects of impression management. Although, its origin can be traced into the human psychology and its reaction from the human cognitive processes which has an extensive coverage in psychological studies. Nevertheless, Impression management also ranges among various stream of literatures including that of but not limited to human behavior and politics. Hooghiemstra (2000) argues Impression management roots in the stream of social psychology and is associated with analyzing strategy used by individuals to portray themselves in a way to be perceived favorably by others. In the words of Schlenker (1980), Impression management is concerned with shaping the readers (audience) perception of an idea, object, person or an event mostly with the purpose of appealing (Gioia *et al*., 2000) to the stakeholders (audiences). The risk follows are manifold as the perception passed through the impression management may communicate contrary to the truth. On the other hand, it may lead to heighten not so important aspects of the organization at the cost of paramount areas for the organization (Gioia *et al.*, 2000).

Thus, the opportunistic attitude of the management thriving to maneuver the asymmetric pattern of the information towards the stakeholders for personal motivations is impression management (Merkl-Davies and Brennan 2007). Impression management techniques results in either portraying a line of image or at large creating a new image in itself (Merkl-Davies, Brennan, and McLeay, 2011). Portraying a line of image is essentially painting an accurate picture of the corporate performance but the picture represents more of the best view or best performance of the overall performance of the firm. On the other hand, creating a new image in itself necessitate of creating an image that id far from accuracy. As previous studies have time and again demonstrated that impression management do exist in various forms of communication between management and their concerned stakeholders (Clatworthy and Jones, 2001.2003, 2005; Mather and Ramsay, 2007; Osma et al ,2011). Managers and thus firms engaging themselves in Impression management tactics can be termed as a propensity to present information scrupulously in order to portray themselves and the firm in the best possible light could be triggered by the incentives possible, due to framing the corporate performance in the favorable light by maneuvering the reporting strategies. These incentives are greater for listed firms (Aerts, 2005) and of critical importance when the performance is not encouraging. If not controlled, Impression management may result in serious economic, political and sociological effect all stakeholders involved and society for example scandals like Satyam in India (Srinivasan ?) and Enron in US were a lethal combination of fraud and impression management (Davidson, 2004).

Accounting research field that covers the corporate reporting also encompasses issues like those design and photographs that are used in the accounting narratives indicates the motivation being Impression management. For example, studies analyzing the usage of different designs in the annual report of a single public listed company for a range of period, demonstrates that managers had thrived to present the achievement of the company performance in the entire time range in the best possible manner by keeping the designs that is focusing on shareholders concern the most rather than any other stakeholder not even the managers (McKinstry (1996). Literatures have also confirmed the rhetorical usage of the photographs in the annual reports (Graves et al, 1996 and Preston et al, 1996). Dwindling environmental results is directly related with escalated scale of environmental disclosure optimism was found by Cho et al. (2010), when analyzing the employment of language and verbal tone in environmental disclosures. Various forms of Impression management techniques specifically of Disclosure tone, Emphasis, Location and selectivity were found to be linked with corporate governance mechanism in a study recently conducted by Osma et al (2011), Wherein strong Governance mechanism discourages Impression management practices.

Impression management, according to Leary and Kowalski (1990), p. 34) "refers to the process by which individuals attempt to control the impressions others form of them." This statement explicitly confers that Impression management is a common human idiosyncrasy, which tends to occur on individual, collective and even organizational level. In the right atmosphere, Impression management

occurs, could intentionally or unintentionally, with the motivation to show themselves in the most favorable image. A tendency due to the idiosyncrasy also subliminal process to put your best foot forward (Davidson et al, 2004, p. 267). This tendency of aligning the most favorable image based on accurate and unbiased information is irreprehensible (Courtis, 2004). Meanwhile, there exist a threat, when impression management strategies adopted by the management and the requirement of communicating the financial performance in an impartial way may give conflicting information. Thus, the act of voluntarily pursuing the practice of impression management does not remain a kind of human attribute rather it infringes principle of true and fair presentation of the financial reporting.

It could largely derail the process of the corporates seeking tirelessly to accomplish a relation with the all the stakeholders concerned and the society (Bozzolan et. al (Fiat Case)). Nonetheless, Impression management more generally accounting narratives might be distinguished by retrospective rationality that implicate forming the actions and events acceptable of the past year (Aerts, 2005).

The Indian companies act (1956 – 2013), does not give any guidance specifically for the narratives although it mentions with respect to the accounting policies and the notes on accounts for disclosing mandatory items specified under the act. In addition, it cautions the true and fair presentation for the notes to the account. The true and fair perception is to be decided by the auditors of the company, in line with the developed nations, like that of UK wherein SAS No. 160, the applicable UK auditing standard, states 'auditors have no responsibility to report that the other is properly stated. Auditors should, however, read the other information and if they identify material inconsistencies with the financial statements or misstatements within the accounting narratives they should seek to resolve them' (APB, 1995, para. 4).

Considering, the complexity of executing these provisions, management have ample of occasion to extensively cover the corporate financial performance that are almost untroubled by any mandatory constraints. Thus, management may adopt opportunistic behavior by managing the perception of the readers for the corporate narratives; consequently, it may lead to conflicting messages (Smith and Taffler, 1995) amid the corporate financial reporting and the financial statements.

Organizations adopt a number of specific impression management strategies to attempt to maintain or enhance their image (Elsbach, 1994; Ginzel, Kramer, & Sutton, 1992; Livesey & Kearins, 2002). Both Aerts (1994) and Clatworthy and Jones (2003), in their respective studies of corporate reports, found that corporations tend to attribute positive organizational outcomes to internal factors and negative organizational outcomes to external factors. Aerts (1994) also found that negative performances are more likely to be discussed in technical accounting terms while positive performances are presented in more straightforward, cause–effect language.

This attitude of management thus engages to enhance the positive outcomes while suppressing the shortcomings of the overall performance by not the neutral tone in the accounting narrative (Merkl-Davies and Brennan 2007). Prior literatures have demonstrated in number of ways of the management practice of heightening successful outcomes while downplaying the negative performances (Cho et al. 2010; Merkl-Davies and Brennan 2007). In the same vein, a study by Lang and Lundholm (2000) demonstrate that the management tend to inflate the encouraging news prior to equity offerings schedule and thus suggesting the narrative communication choices having impacted the perceptions of the investors and those concerned alike. Numerous literatures advocated the use of other techniques like visual and illustrative to enhance the successful outcomes while minimizing the bad news (Beattie & Jones, 2002; Bowen et al., 2005; Cheng & Courtenay, 2006; Courtis, 2004). According to (Krische, 2005; and Schrand & Walther, 2000), the frequent strategy to carry out impression management is to use positive and shiny language despite where neutral or even negative language is sought, in order to communicate positive perceptions or to enhance the successful outcomes. Along

with spreading the peak of the good news within the entire communication space available and comparing the successful outcomes that of a chosen reference point within the specified period.

Agency Theory

Studies from the past have repeatedly found the senior managers having opportunistic attitude motivated by personal reasons (Staw, et al. 1983; Abrahamson & Amir, 1994). Economics-based theories, especially the agency theory could update the prevailing approach on impression management in a corporate disclosure framework (Merkl-Davies and Brennan 2007). As agency theory, is based explicitly on the understanding that individuals behave opportunistically and will try to maximize their benefit at the cost of society's benefit. It targets the accord amid the managers and the shareholders, wherein it constitutes the legal responsibility of managers with that of value creation of shareholders. Within the frame of corporate disclosure analyses, it is interpreted that the management having opportunistic attitude may enhance the successful outcomes while communicating through narratives and may conceal any negative outcomes (Courtis 1998). On the contrary, the shareholders desire the appointed management to be working in the most efficient way to have the maximum utility, while maintaining a neutral reporting system of the performance.

Disclosures within the narratives and the capital allocation decision are made on the basis of calculating the cost benefit ratio and is drawn upon various factors from external bounds. According to Rutherford (2003, p. 189), managers perform in a milieu wherein their remuneration and success is dependent upon the financial and sustainable accomplishment of their firm, giving a strong reason for the management to have an opportunistic attitude and engage in Impression management tactics. Since, both the parties that is the principle (shareholder) and the Agent (management) are termed as rational individuals who make decision based on their benefit, the decision making process is followed by the calculation and analysis, while the motivation to do so is found rigorously in utilitarian grounds. The corporate reporting process could thus be used to provide incremental information or could be used to mislead the investors by providing inaccurate information and thus engaging in impression management.

Since, the impression management and incremental information, the competing school of thoughts have their foundations based on the agency theory assumptions (Baiman, 1990), it is confirmed that the research in this sector is headed by the agency theory. The incremental information school of thought is based on the assumption, which the managers thrive to enhance their remuneration by supplying discretionary corporate reporting directed to augment the capital supply and thus improving the overall share performance (Baginski et al, 2000). On the contrary, the impression management school of thought advocates the personal motivations, as the driving factor for the senior management in order to engage in opportunistic strategies of discretionary corporate reporting's (Smith and Taffler, 1992a, 2000; Abrahamson and Park, 1994; Courtis, 1995, 2004a, 2004b; Godfrey et al, 2003; Aerts, 2005).

According to Aerts, (2005), senior managers engage in managing the perception of the readers about performances and future prospects and thus their decision on investment, considering the fact that bad news with respect to the performance results in conflict of interest between the managers and the financial stakeholders. The attitude of senior managers to engage in managing perceptions have resulted to what Courtis (1998), mentions obfuscation hypotheses. According to which, managers enhances the success and conceal the bad news (Adelberg, 1979), and do not practice true and fair presentation in corporate reporting by being neutral (Sydserff and Weetman, 1999).

Literatures advocating for Impression management, especially during the challenging times like that of environmental disasters (Hooghiemstra, 2000), corporate scandals (Linsley and Kajüter, 2008),

major reorganization (Arndt and Bigelow, 2000) and finally during adverse financial performance (Abrahamson and Park, 1994), as it may aid re-establishment of the lost stature and defend ability.

Impression management also stems from the necessity to convince the concerned stakeholders of the rare situations and unique event with the respect to the challenging times the company is witnessing, and thus restoring the reliability (Merkl-Davies and Koller, 2012). Its use under action-reaction theory for reinstating the legitimacy is well documented (Odgen and Clarke, 2005; Linsley and Kajüter, 2008), and managing perceptions in the form of demutualization and reorganization (Arndt and Bigelow, 2000). The standpoint ratified dictates the course of reasoning, as a confined approach sequels the strategy of impression management tactics that involves managing perception of the concerned stakeholders with respect to performances (Clatworthy and Jones, 2001, 2003; Rutherford, 2003). Paradoxically, a broader approach leads to analyze wider issues like managing perception of the concerned stakeholders with respect to structural changes like privatization, demutualization, mergers or acquisitions (Arndt and Bigelow, 2000; Odgen and Clarke, 2005) and of sociological and political prestige, organizational legitimacy (Hooghiemstra, 2000; Linsley and Kajüter, 2008).

Signaling theory

Although, the tactics used by the senior managers of financially strapped companies could be described by the agency theory, the Signaling theory explain the stratagem of managers from well performing corporations. Morris (1987) introduced signaling theory to demonstrate the complication of information asymmetry. Whereas, with respect to Impression management it was primarily discussed by Smith and Taffler (1992), and was considered extensively in Rutherford (2003). The theory proposes a reasoning of rationally behaving individuals and thus mangers of corporates that engage in voluntary disclosures. According to signaling theory, voluntary disclosures directs additional information about the companies in the competitive capital markets. Which according to its effectiveness adds value as a participant to gather resources in the form of capital allocation and enhances competitive advantage.

Senior managers, especially from financially successful firms engage in impression management with a purpose to provide signal with respect to their meritocracy in the form of enhanced clarity provided in the voluntary disclosure of corporate reporting (Merkl-Davies & Brennan 2007). According to Toms (2002), and Branco et al, 2006), there has been widespread contemplation of signaling theory with respect reputation management, especially organizations thrive to enhance their reputation though signaling towards stakeholders concerned of its most favorable image. Due to this motivation to pursue personal interest and maximize personal gains, signaling theory could be regarded as a prolongation of Agency theory.

Both the theories, agency and signaling advocate from the accounting perspective, that corporates will embrace suitable accounting practice with the assistance of voluntary corporate reporting practices (Watts and Zimmerman, 1986; 1990; Ross, 1979; Morris, 1987), as there is an established nexus amid the corporate performance and clarity of exposition (Smith and Taffler, 1992). In this manner, reducing uncertainty by reporting broadly, accurately, and thus lowering the risk for the investment and subsequently the cost of capital for the corporate. Past literatures covering extensively on the signaling structure (Ross, 1977; Brennan & Thakor, 1990) demonstrates, that the paradoxical interest amid the shareholders and the manager's, results in management working on the signal directed towards the capital market on lean but important points (Cho and Sobel, 1990; Kreps and Sobel, 1994), which just hits the spot of reader's requirement.

The signaling theory explicitly assume that even the most successful corporates draw signaling mechanism so as to provide their competing fortitude information by covering them extensively and

clearly. In the fast computer age, financial agreements are carried out and revived rapidly, signaling theory advocates, the shareholders seek the corporates who are chasing capitals and require them to impart information extensively and clearly about their performance (Holden and Subrahmanyam, 1992). Hence, the agents or the manager's as anticipated transmit signals to the capital market (Healy and Palepu, 2001; Verrecchia, 2001).

Signaling theory has been applied to a wide area of research framework especially, to describe the importance of information asymmetry for example, Zhang & Wiersema, (2009), in their analysis of CEO's communication strategy, demonstrate the way CEO signal to the capital market the imperceptible characteristics of their company with the help of noticeable characteristics of the financial statements. Signaling theory has also been applied to various management and corporate governance issues like venture capitalist and angel investor presence (Elitzur & Gavious, 2003), and signaling value of board characteristics (Certo, 2003). Miller & Triana, (2009) show how signaling theory demonstrate the firms using heterogeneous form of board to manage perception and maintaining adherence with respect to social values and thus its stakeholders concerned. While, it also has a contribution in managing human resource, especially focusing on signaling aspects during the recruitment process (Suazo et al, 2009). In the context of this paper, it is expected that the firms having better governance practices will lower the impression management usage leading to reduced signals and vice versa.

Corporate Governance

The corporate governance research was originated and can be sketched back to at least Berle and Means (1932), wherein they corroborated that the managers rather than the owners or the shareholders of the companies were persuasively commanding the corporates trading publicly. Considering this extensive continuance of corporates distinguished by the ownership and control, the research in corporate governance usually targets the structure within the organization to reduce the agency problems and thus encouraging these economical and social foundations. According to Sloan (2001, p. 336), corporate governance can be defined as "the mechanisms that have evolved to mitigate incentive problems created by the separation of management and financing of business entities". This viewpoint terms corporate governance as a sequence of contractual and control structure especially among the publicly traded corporates, where ownership and control is seperated so as to supervise and control management's conduct.

According to Neu (1991), Impression management is associated with the management's effort to influence the understanding of financial statements thus lending additional encouragement for exploring association amid corporate governance and impression management. Impression management takes place, when selective information is chosen by the management with the motivation to manage or distort the perception of the information user with respect to the corporate performance which in turn may induce misappropriation of capital allocation by the investor's and stakeholders concerned. The possibility for Impression management to occur is maximum in the deregulated sections of accounting narratives, therefore it is utmost crucial to scrutinize the data of the front section of the annual reports like chairman's letter considering the investors and stakeholders alike seemed to be very sensitive for this section as opposed to the financial statement. (Bartlett and Chandler, 1997).

The OECD (1998b) describes holistically the value of good corporate governance in its report on Corporate Governance: Improving Competitiveness and Access to Capital in Global Markets, which promoted the seriousness of transparency and disclosure:

''The disclosure of the corporation's contractual and governance structures may reduce uncertainties for investors and help lower capital costs by decreasing related risk premia. Such

transparency may also encourage a common understanding of the 'rules of the game', and provide employees with information that may help reduce labor friction''.

In one of its report, OECD (2004) principles of corporate governance is that:

"The corporate governance framework should ensure that timely and accurate disclosure is made of all material matters regarding the corporation, including the financial situation, performance, ownership, and governance of the company."

Essentially, an established corporate governance, true and fair representation of the corporate reporting and thus the enhanced reliability of the corporate image, may not completely diminish the chances of performance deficiency. However, it could supply wake up calls or such noticeable warnings to the stakeholders and legal authorities concerned. Information asymmetry can be thus curtailed drastically between principal and agent and all the stake holders concerned by increasing the clarity and dissemination of information in the form of extensive coverage and fair presentation by practicing good governance.

We estimate an established corporate governance structure will discourage the perception manipulation and propagate the accuracy of the disclosure practices, it will thus dissuade the possibility for fallacious decision making by concerned stakeholders in the form of various practices like controlling the preparation, presentation, of dissemination information.

Hypotheses Development

The research background of corporate governance from accounting perspective is that an established corporate governance mechanism procures substantial amount of return on investment, resulted through efficient mechanism of corporate governance. That ultimately promote the movement of securities market and thus the applicable financial and human capital along with encouraging investment atmosphere. Corporate governance as defined by La Porta et al. (2000) as "a set of mechanisms through which outside investors protect themselves against expropriation by corporate insiders". It is crucial to realize that an established corporate governance structure is efficient through a number of governance techniques working together and thus making it essential to analyze individually each of them.

Independence of board of directors

It is being argued that the Board of directors is the primary and centralized control mechanism internally for supervising and auditing manager's role (Fama, 1980). Both the theories of Agency theory and Resource dependent theory advocates for the greater the number of Independent directors amid the total number of board of directors for their capability to accomplish their controlling and auditing functions (Fama and Jensen, 1983; Pearce and Zahra, 1992), along with ensuring the fair and balanced approach towards communication within narratives.

According to Jensen and Meckling, (1976), agency theory provides the reasoning of Independent directors be sought within the boards to supervise and audit the actions of insider or non-independent directors. In the similar vein, Fama and Jensen (1983) consider the independent directors as proposed "decision experts". Managerial Impression management may receive further protection by non-independent directors especially while evaluating manager's performances (Schaffer, 2002). Independent directors are less associated with the management as compared to that of insider directors and thus shall be more motivated to reveal important information to outside investor's (Eng and Mak, 2003).

Past literatures, empirically found the evidence of positive association amid the proportion of independent directors and voluntary disclosure (Chen and Jaggi, 2000). In addition, that the presence of Independence directors discourage potential fraud in financial statements (Beasley, 1996). On one hand, Daily and Dalton, (1994), demonstrated that the greater proportion of independent directors improved performances, on the other Hermalin and Weisbach, (1991), have found no association between them. Nevertheless, the presence of independent directors does increases the value for shareholders in numerous way which may include but not limited to tendering offers for bidders (Byrd and Hickman, 1992), and in in hostile take-over threats (Gibbs, 1993).

Hypotheses 1: ceteris paribus, there exist a negative association amid the proportion of independent directors and the level of impression management in chairman letter.

Chairman and CEO role separation

It is very well known that there is an established conflict (Forker, 1992), between the independent directors and Chief executive Officer due to the "dominant personality" factor. The independent directors are motivated to supervise the Chief executive Officer, replace them wherever applicable, and preserve their independence level, while the CEO has reasons to direct the board to magnify their personal interest (Hermalin and Weisbach, 2003). The argument speculate over role duality, by way of, when the Chairman of the board is also the CEO.

Past researches, provides two distinct glimpse for this argument. At one hand, literatures of the agency theory enthusiast (Argenti, 1976; Blackburn, 1994) advocate for the segregation roles, to necessitate checks and balances system over the performance of the management. However, the alternate view is created upon the stewardship theory, advocating for not separating the roles as organizations are better controlled and function with the dual roles managed by single person (Eisenhardt, 1989, Dahya et al. 1996, Donaldson et al., 1991 and Rechner et al, 1991), as stewardship theory argues that managers perform in the best interests of the firms and its owners, so the role duality maximizes the capability of the boards. The Indian best practice guidelines include a recommendation that the same individual should not exercise the role of chairperson and chief executive officer and so the regulation does not encourage it either (Indian companies act, 2013). It is argued, that the chairman of the board who is also the CEO tends to decline the boards effectiveness to monitor efficiently.

While, researchers like Brickley et al, (1996) propose of combining the roles, as there is not any effect on performance of the firm or from the external factors by combining or separating these roles. However, the same perception is doubted from monitoring perspective, as Dechow et al., (1996) demonstrates that corporates manipulating earnings are more inclined role duality within their boards.

Conclusively, a role separation between the CEO and Chairman of the board will support the monitoring process and reduce opportunistic behavior, consequently enhancing the quality of the corporate reporting.

Hypotheses 2: ceteris paribus, there exist a negative association between Chairman and CEO role separation and the level of Impression management used in the chairman letter.

Presence of a remuneration - nomination committee

The remuneration committees accommodate the compensation of the Chief Executive Officer to curtail the opportunistic attitude (Dechow, Huson, and Sloan (1994), while these committees also enhance the effectiveness of the audit committee and the board in general in order to minimize the

manipulation practices (Osma et al, 2007). The nomination committee scrutinize the facts collected about potential candidates to select and nominate for the board selection. Evidently, NYSE mandated in 2003 to furnish if the firms do have a separate nomination committee or not.

These committees are capable of mitigating the agency problems stemming from the separation of ownership and control by formulating and executing mechanism that considers the interest of both the parties that is the shareholders and the management. Thus, it could be widely argued that by taking care of both the parties, the committees enhance the smooth functioning and so the corporate reporting practices of the company.

Hypotheses 3: ceteris paribus, there exist a negative association between presence of remuneration and nomination committee and the level of Impression management used in the chairman letter.

Number of board meetings

According to Fama and Jensen, (1983a, 1983b), the board of directors has direct control to authorize and audit management's activities, along with assessing and judging their performances. The non-independent directors exhibit the crucial knowledge about the corporate activities, whereas the independent directors contribute critical consultation and neutral evaluation of the management's decision. Adams and Ferreira, (2008), argue board meeting is the crucial mechanism for independent directors, as it is the only way, they could perform their duty of getting knowledge about the management in general and thus, monitor and take decisions accordingly. Vafeas (1999) demonstrated that board activity if calculated by its number of meeting is a crucial amplitude of board operations. Apparently, the board meetings are important means for the board of directors in order to make strategic decisions along with supervising, monitoring and directing the firms.

According to the requirement of the Revised Indian Code on corporate governance, companies are encouraged to have regular board meetings for discharging duties and responsibilities. In addition, it is mandatory for the board to disclose the number of board meetings held in a year and details of the attendance of each individual director in respect to meetings held.

According to researchers like Lipton and Lorsch (1992), Byrne (1996), argued that frequent active meetings among the board of directors, are effective mechanism to disseminate the firm specific information and are thus more probable to their duties efficiently and with conformity toards the shareholders interest.

Hypotheses 4: ceteris paribus, there exist a negative association between the number of board meetings and the level of Impression management used in the chairman letter.

Number of audit committee meetings

Board committees are domineering progressively a crucial demeanor in supervising and controlling corporations. Studies demonstrate how committees can elucidate the corresponding complication of bigger boards (Reeb and Upadhyay, 2010). Likewise, Audit committees are liable for inspecting the financial reporting process and safeguarding the goals of the external audit. However, studies like Beasley (1996) conveyed that audit committees do not considerably curtail the possibility of financial statement fraud.

The Sarbanes Oxley Act (2002), necessitate that corporates must have an Audit committee constituted by independent directors only, meeting at least four time a financial year. The SEBI (Securities and exchange board of India) in its listing agreement required to have an audit committee chaired by an

Independent director and must meet at least four times a year. Likewise, the NYSE, since 1978, has mandated companies to have an audit committee comprised totally of independent directors. Piot and Janin (2007) studying the SBF 120 index of French companies between 1999 and 2001 demonstrates that the independence of the audit committee alleviates earnings management. In a study Beasley et al, (2000), comprised of three different sectors of industries, it was evident that fraud-committing companies of two sector among the three had minimum audit committee meetings, while the deceptive companies from all the three sectors had minimal internal audit support mechanism. In an analysis for the Australian companies (Baxter et al, 2009), found indication of negative association between the number of Audit committee meetings and opportunistic behavior.

Hypotheses 5: ceteris paribus, there exist a negative association between number of audit committee meetings and the level of Impression management used in the chairman letter.

Board size

The board of directors has the legal authority to approve and supervise the management, along with recruiting, decide compensation and termination of the senior management. The board of directors are termed as a fundamental mechanism (Fama and Jensen, 1983), of corporate governance that is capable of resolving crucial agency conflicts that are essential in functioning any company.

It is often argued, (Jensen, 1993), that efficiency of bigger boards are limited considering lack of coordination and issues related to process is greater than the benefits of proximity to extensive expertise and skills. According to Reeb et al, (2010) and Lipton et al, (1992), bigger boards have a higher free-riding problem. However, Xie et a1 (2003), and Chtourou et a1 (2001), demonstrated that bigger boards have negative association with earnings management exhibiting the effective monitoring role of larger boards of the managements activity.

Moreover, as per Jensen, (1993), bigger boards benefits in the form of holistic separation of assignment through various board committees enhancing further the effectiveness of board and coordination among its committees. Bigger boards also tend to have higher proportion of Independent directors of financial backgrounds preventing further opportunistic attitude and safeguarding the balanced and neutralized approach towards the corporate reporting.

Hypotheses 6: ceteris paribus, there exist a negative association between number of board members and the level of Impression management used in the chairman letter.

Control variables

There are four control variables used in this research. We include Size of the firm, considering the larger size of the firm would be less inclined to engage in the self-serving disclosure practices and would follow the best code of conduct in its reporting practices. Another control measure for incorporating into the model is Return on Equity, as the successful financial companies would be less inclined to engage in impression management techniques considering their performance would not require any window dressing within the reporting. We follow Osma et al (2011) and also include Nifty 50 index listed companies as the index is list of 50 companies that keeps updating based on their performance and more importantly their corporate ethics which may include but not limited to Corporate governance practices and Sustainability initiatives. Along with Positive news for the next year (PNNY), considering the firms reported to announce good news for the next year can substantially cover the declined performance of the current year and focus more on the next big news for all the stakeholders concerned (Osma et al, 2011).

Measurement of dependent variables

Disclosure tone

This technique of Impression management draws inferences from the thematic manipulation, which examines the patterns of language directed towards the attribution and causal reasoning with the intention of portraying the corporate performance in positive lights. The technique deliberately uses positive tone while describing the performance of the corporate especially using keywords and statements instead of unbiased and negative tone wherever applicable. Prior literature includes Frazier *et al*. (1984), Abrahamson and Park (1994) and Abrahamson and Amir (1996, Clatworthy and Jones (2003, 2006), Osma et al (2011) that concludes managers using the thematic manipulation in order to convey the performance of the company in the best possible light.

These literatures confirm the usage of thematic manipulation by the managers through the disclosure tone either positive or negative in the form of word and sentence used and their respective frequencies. As in the previous literature, studies focused on the extract themes and their disclosure tones in the company's annual reports (Frazier *et al*. 1984) by using the factor analysis, and the methods to cover the negative results in the president's letter (Abrahamson and Park 1994, Abrahamson and Amir 1996). On the other hand, thematic analysis by using additional measures in the form of sentences (Kohut and Segars, 1992) and personal references (Clatworthy and Jones, 2006) along with passive and future oriented sentences.

In this study, we measure the thematic manipulation of the chairman's letter in the annual report by following the previous methodology used in the past (Clatworthy & Jones, 2003; Brennan et al., 2009; Osma et al 2011) wherein capturing the keywords and statements along with the quantitative amounts with their implication (performance comparison) either positive or negative. Further details are provided in the appendix.

Emphasis

Another very important technique of Impression management used by the managers which can used in various forms (Brennan et al 2009) while assuming the receiver in this case the shareholder to whom the letter is addressed observe the information more which is emphasized more . In this study, we analyze the emphasis form of impression management in three forms i.e.:

Location: wherein a positive information is placed in the most emphasized section of the letter (Introduction or initial paragraphs) and thus continuing throughout the letter using the visual emphasis or degree of prominence. Visual emphasis or degree of prominence refers to the location or positioning of information in the chairman's letter in line with previous literatures (Staw *et al*. 1983; and Bowen *et al*. (2005; Osma et al 2011), which is further classified as, most-emphasized, next-most-emphasized and least-emphasized (see appendix for further details).

Repetition: wherein the repeating the same information more than one times with the motive to emphasize its reflection on the reader. According to Courtis (1996), repetition of disclosures may improve the understandability of financial reports or it may simply intensify the commotion to the disclosure practices. An item (statement or amount) is termed to be repeated when it is described more than once (Courtis, 1996; Guillamon-Saorin, 2006; Osma et. al 2011).

Reinforcement: According to Guillamon-Saorin, (2006) and Osma et. al (2011) Reinforcement takes place when emphasis is laid upon on a particular keyword by use of a qualifier. Despite not a universal practice (Brennan et al 2009) it is generally found in the disclosure process prepared by the managers (Brennan et al 2009; Osma et al 2011) and therefore its being observed as useful in the study.

Performance comparisons

It refers to the use of benchmark especially comparing the current result or performance with that of the previous or past year's achievement of the corporate with the motive to demonstrate the changes that could be either positive or negative. Yet, this impression management technique is based on the assumption managers introduce positive changes by selecting performance comparisons that allows them to paint their recent performance in the most favorable image. Prior literature that confirms that managers are most likely to use the lowest comparative benchmark item of past years that results in the highest current year performance (Schrand and Walther 2000) and firms are more like to use performance graphs in narratives when they perform above satisfactory level (Cassar (2001). Past research has also concluded the size and the performance of the corporate does impacts the tone of the CEO's (Short and Palmer 2003), if the firm is large and performing better they tend to refer more the performance towards external sources than the firm that is small and not performing.

Selectivity

This technique measures the strategy adopted by the managers for the corporate narratives by using the financial amounts to emphasize the better performance. Among the available ranges of amounts from the profit and loss account and earnings parameters, managers deliberately choosing the amount which portrays the earnings in the best possible light even though the chosen amount is not relatively important. The practice may use involve the financial amount or ratio which does not even reflect on the financial statements of the firm. The purpose of using the pro forma or selective earnings is to manage the perception of the readers (Johnson and Schwartz (2005). Firms tend to select the highest earnings numbers in order to portray their earnings and thus themselves in the most favorable image (Guillamon-Saorin 2006). This practice of managing the perception of the readers of the narratives with the help of selective amounts is used for the purpose of impression management and hence, depending on the item chosen, a selectivity score is assigned. (For details, please refer the appendix).

Based on the impression management techniques discussed above, in this paper we follow Brennan et al (2009) and compute three composite scores of impression management. These composite scores are based on qualitative and quantitative items and include both the positive and negative items to arrive at the final score; the third score is also quantitative which is calculated without including the technique of selectivity (For further details please refer to Appendix). The qualitative composite score is calculated by coding the following items: (i) keywords and statements (ii) repetition of statements,
(iii) reinforcement of keywords, and (iv) location of the information within the letter. Thus, the quantitative composite score is calculated as: (i) amounts, (ii) repetition of amounts, (iii) performance comparisons and (iv) location of the information within the letter.

The final score or better the measure of bias score of the impression management is derived by using the methodology similar to that of Gordon et al (2008) and Tetlock et al (2008). This methodology to derive the bias score is suggested by Brennan et al (2009) and empirically tested by Osma et al (2011). The individual impression management bias scores are derived as follows:

IMQL (qualitative): Total positive qualitative composite score minus total negative qualitative composite score divided by total qualitative composite scores.

IMQNs (quantitative including selectivity): Total positive quantitative composite score (including selectivity) minus total negative quantitative composite score (including selectivity) divided by total quantitative composite scores (including selectivity).

IMQN (quantitative): Total positive quantitative composite score minus total negative quantitative composite score divided by total quantitative composite scores.

The scores are calculated by coding each item individually based on the weights assigned. Since the weightings are subjective, a sensitivity test carried to check any variations but Osma et al (2011) found no differences. These weightings are developed by Brennan et al. (2009) and is further empirically tested by Guillamón-Saorín, Brennan, and Pierce (2010) and Osma et al (2011). For further details on the weightings, refer the Appendix.

Methodology

Sampling design

This study examines the Impression management (both qualitative and quantitative) techniques namely disclosure tone, emphasis, performance comparison, and selectivity used in the accounting narratives. The sample used for the analysis comes from varied industries and sectors, while the accounting narratives used, is the Chairman's letter of the 85 NSE (National Stock Exchange - India) listed companies for the year ended 2011 – 2012.

Development of the research instruments content analysis

The commonly used technique to measure the impression management is content analysis (Smith and Taffler (2000), encompassing the various dimensions like motivations and influencing factors for their attitude. Although, exhaustive and time consuming, Manuel content analysis helps decent and extensive comparisons and analysis despite limiting the size of the analysis. Studies manually covering the analysis include Bettman and Weitz, (1983); Staw *et al.*, (1983); Courtis, (1986); Jones, (1988); Lang and Lundholm, (2000); and Clatworthy and Jones, (2003). There are studies that utilized the software as well for instance Smith and Taffler, (2000); Rutherford, (2005); Henry, (2008); Matsumoto et al., (2006) along with the dual approach of programs and manual coding like Abrahamson and Park, (1994); Abrahamson and Amir, (1996); Smith and Taffler, (2000).

Measurement of thematic analysis necessitates judgement while coding, and might require greater subjective intuition while analyzing Impression management techniques like discussed above.

According to Linderman (2001), comparing human and software program measurement relies on the complexity of categories, if categories are simple enough software programs is optimal, while with complex classification it advisable to use the manual analysis. Considering the subjectivity potential of manual content analysis and the refined and attenuated impression management techniques, certifies the use of manual content analysis.

The coding manual is prepared in accordance with the outline provided by Brennan et al (2009), and is further tested by two independent coders with a reliability score of above 80% upheld by past researchers for example, Hackston and Milne (1996) and Milne and Adler (1999).

Measurement of Independent variables

The independent variables are categorized into corporate governance and control variables. Data are taken from corporate annual reports and Ace tech research data. The summary for the rationalization of these data's are provided in the Appendix section in table 1.

Multiple regression is used to test the relationship between Impression management (based on each of the three techniques) and the various corporate governance and control variables. To identify potential multi collinearity problems, the variance inflation factors (VIF) computed and the correlations between independent variables were reviewed.

Moreover, analysis for all dependent and continuous independent variables were conducted for normality, through skewness and kurtosis and shapiro-wilk test, when normality was an issue the data were transformed. Meanwhile, linearity along with normality and homoscedasticity conditions were reviewed by conducting an analysis of Q-Q plot and of residuals plots of the studentised residuals against the predicted values. The regression equation is as follows:

$$IM = \beta_0+\beta_1 ACM+ \beta_2 BZ+\beta_3 BM+ \beta_4 PrID+\beta_5 RS+ \beta_6 PRNC+\beta_7 ROE+\beta_8 NIFTY50+\beta_9 \ln(SIZE)+ \beta_{10} PNNY+\varepsilon_i$$

Wherein;

IM	=	Qualitative Impression Management score, Quantitative Impression Management score with selectivity or Quantitative Impression management score without selectivity.
ACM	=	Number of Audit committee meetings held during the financial year
BZ	=	Number of board members
BM	=	Number of board meetings held during the financial year
PrID	=	Proportion of independent directors within the board
RS	=	Takes value of 1 if the position of chairman and CEO/Managing Director is held by two separate individuals 0 otherwise.
PRNC	=	Takes the value of 1 if there exist a remuneration and Nomination committee within the board, 0 otherwise.
ROE	=	Return on Equity of the companies for the financial year ended.
NIFTY50	=	Takes the value of 1 if the company is listed under NIFTY50 list; 0 otherwise.
ln (Size)	=	Logarithm of total assets (proxy for firm size)
PNNY	=	Takes the value 1 if the firm has to report positive news focusing towards following year, 0 otherwise.
β	=	Parameters;
ε	=	Error term
i	=	the ith observation

Table 1 of the statistics section represents the correlation among the dependent and independent along with the control variables. Kennedy (1985) suggested that multi collinearity be viewed as a serious problem only if the correlation between explanatory variables exceeds 0.8. No association among the Independent variables exceed the mentioned threshold. In addition, the VIF computed for the explanatory variables are not more than five for any of the independent variables (Hair et al., 1995, Ringle et al., 2015). Consequently, we can confirm there is no multi collinearity issues among the explanatory variables.

The correlation table shows strong association among the qualitative impression management with that of the corporate governance mechanism. Among all the impression management score analyzed

the qualitative stands out to be strongly associated with that of the majority of the corporate governance variables, especially ACM, BZ and BM from the governance mechanism along with Ln (size) and NIFTY50 within the control variables to be significantly (both 1% and 5% level) and negatively associated with the governance variables. While the IMQN's is associated with the variable BZ, the score of IMQN is not associated with any Corporate Governance variables. Among the control variable, PNNY is negatively significant with all the Impression Management score.

Results

Descriptive analysis

Table 2 of the statistics section provides the descriptive statistics for all the variables analyzed within the study. The mean values for the all the Impression management scores approximate at the 0.5 levels. While, the median scores for the IMQL, IMQN's and IMQN is 0.55, 0.76 and 0.63 respectively. The number of audit committee meeting ranges from 4 to 16 with the mean being 6.36. While the Board meeting ranges between 4 to 17 and mean being 6.5, both the meetings variable indicates the compliance of the Indian firms with the minimum meeting requirement as per the Indian companies act requirement. The size of the board for the companies within the analysis ranges from 4 to 18 of which the proportion of Independent directors ranges between 0% to 78%, while the mean values being 11 and 41% respectively. Lastly, the mean values for the Role separation and Presence of Remuneration and Nomination Committee within the board remained at 0.65 and 0.75 respectively. Meanwhile, 32% of the companies under the analysis represented NIFTY50 nominated participants and 40% of the companies had to report positive news for the next year vis a vis comparison with the current year.

Regression results

Table 3 provides the regression result for the Qualitative Impression management techniques used by the companies in the chairman's letter with that of the various corporate governance mechanism. The regression that resulted with the adjusted r square of 42% showed significance negative association with almost all the governance mechanism both at 1% and 5% level. The variable ACM negatively associated with the Qualitative Impression management at 1% significance. With the exception of the PrID rest all, the governance variables are associated at 5% significance level and are negative in nature. Among the controls, Ln (Size) (positively) and PNNY (negatively) are associated at 5% significance level. While the regression result for the Quantitative nature of Impression Management does not yield, any significant results with the exception of PNNY associated negatively at 5% level of significance with both the scores that is with and without selectivity.

Examination of hypotheses

Table 4 summarizes the association between the Impression management techniques and various corporate governance and control variables used in this study. The hypotheses testing was completed on all three formats or techniques of measuring impression management and most of the variables tested were found to be negatively associated, especially with the qualitative part of Impression management both at 1% and 5% levels. While the measurement for the quantitative part of Impression management does not seem to be having any significant impact of the variables analyzed, especially with that of the chairperson's letter in the form of accounting narrative.

Proportion of independent directors was expected to be one of the major corporate governance determinants for curtailing Impression management techniques; however, it was found that the

variable is associated only with the quantitative (IMQN's) impression management negatively. Among the controls, PNNY is significant, negatively with all the measures of the impression management and seemed to have a very fundamental effect on the corporate reporting decision makers.

Summary and Conclusion

In this paper we analyze the association between the impression management practices used in the chairman letter of the Indian firms and the corporate governance along with control variables. The chairman statement a widely popular and important accounting narrative could be used to manage the perception of the readers with the motivation of creating false impression (Clatworthy and Jones, 2003). The result strongly suggest the limitation of impression management within the chairperson letter if backed by a strong and reasonable corporate governance structure, in line with previous analysis (Osma et al, 2011). The result is strongly supported for the qualitative aspects of impression management and does not have any significance association with the quantitative aspects. One explanation for the same would the chairman letter does not include an extensive coverage of the ratios comparatively, to that of management's discussion and analysis report in the annual report. Thus, to get a clearer picture of the same, it would be fruitful to extend the narratives section for the analysis of impression management with respect to the extended territory and its association with that of corporate governance mechanisms.

The results strongly supported for the qualitative data for almost all the corporate governance factors except of independence directors and among the controls for NIFTY 50 and Return on equity. The corporate governance variables that are strongly associated of limiting the opportunistic behavior for the corporate narrative reporting are the number of audit committee meetings in the line previous researches of supporting the shareholders interest in various forms (Piot and Janin, 2007, and Baxter et al, 2009). And role separation was also significant at 1% confirming the separation of role does plays a role in enhancing the quality of voluntary disclosures in the form corporate reporting. The analysis also contributes towards the previous researches of role separation improving the credibility of the board effectiveness (Dechow et al., 1996, Donaldson et al., 1991 and Rechner et al, 1991). The regression analysis also proved the presence of remuneration and nomination committee does play a crucial role in curtailing the self-interested corporate reporting attitude and safeguards the shareholders interest consistent with the previous researches (Dechow, Huson, and Sloan (1994) and (Osma et al, 2007).

The paper also establishes the importance of the effectiveness of the board, as board are termed to be the crucial mechanism in controlling and governing the activities and functionality of the firm (Osma et al, 2011). The empirical analysis in this paper confirms the association of board size and board meetings to be strongly associated with the disclosure practices of the firm. Both the variables are negatively associated at 5% level with the perception management strategies in the accounting narratives of chairman letter. Consistent with the past researches exhibiting the importance of board effectiveness in enhancing the shareholders interest and curtailing any agency conflict that may arise (Xie et al, 2002, and Chtourou et a1, 2001) and (Adams and Ferreira, 2008, Vafeas, 1999, Lipton, Lorsch, and Byrne, 1996). While among the control variables, positive news for the next year has a very strong association with the opportunistic behavior of the corporate reporting for the performances, clearly indicates that management tactics for voluntary disclosure is indeed a matter of perfect timings in line with the previous research (Osma et al. 2011).

The size of the firm is positively related to that of the impression management usage, confirming the larger the base of stakeholders and greater the diversity of them, necessitates the greater use of perception management through biased reporting. These demonstrations must be of extreme consideration for policy makers and regulators along with accounting professional and certainly the investors in particular. The research hypotheses if the corporate governance mechanism does limits the self-serving disclosure by the management is being uncovered for the various forms of Impression management techniques. This form of literatures supports the agency theory issues and uncovers various complex yet effective modes of opportunistic attitude towards the corporate reporting (Eisenhardt, 1989). Since, previous literatures argues, that corporate governance individual mechanism is not as effective as the combined elements working together (Osma et al, 2011). We also tested the association of overall corporate governance score with that of the individual Impression score, and found the same result for the qualitative and quantitative measures.

This study contributes towards the overall literatures involved in several ways. This would be the first scientific study to verify the linkage amid the corporate governance and the accounting narrative in the form of Chairman's letter. In addition, this would be the first paper to develop such link from the developing country perspective. This would also be the primary research with respect to Impression Management as there is no prior study being conducted for Indian Companies. In addition, this paper by establishing the link between the corporate governance and its impact on better decision-making process directly contributes towards the classical agency theory. While, it also contributes towards the Impression management theory from an emerging economy perspective in the light of various measuring technique discussed. The study also contributes towards the signaling theory through established result amid the association between the corporate governance and the impression management indicating the governance mechanism indeed is used to suppress the opportunistic signaling behavior.

The preparers of the corporate reporting in this case the management undertakes approaches from various audience perspectives. As Staw et al., (1983), describes the audience is divided into internal and external groups and thus, the research design must take into account, the interaction effects between the preparers and the audience of these reports. The audience could thus be categorized into more meaningful groups like various board committees, employees, creditors and regulators, competitors and of course the equity investors. The future research could incorporate various groups of audience for further understanding the interaction effects along with the techniques used for managing perception and the role of various governance factors that does have any amplitude for such practices. In Addition, the quality of corporate governance does have any impact on the use of attributional bias should be of particular interest.

References

Abrahamson, E., & Amir, E. (1996). The information content of the president's letter to shareholders. Journal of Business Finance and Accounting, 23(8), 1157–1182. Abrahamson, E., & Park, C. (1994). Concealment of negative organizational outcomes: An agency theory perspective. Academy of Management Journal, 37(5), 1302– 1334.

Aerts, Walter and Yan, Beibei, Rhetorical Impression Management in the Letter to Shareholders and Institutional Setting: A Metadiscourse Perspective. (January 7, 2016). Accounting, Auditing and Accountability Journal, Forthcoming. Available at SSRN: https://ssrn.com/abstract=2828609

Adams, Renée B., and Daniel Ferreira. "Do directors perform for pay?" Journal of Accounting and Economics 46.1 (2008): 154-171.

Adelberg, A.H. 1979. Narrative disclosures contained in financial reports: Means of communication or manipulation. Accounting and Business Research 10 (summer):179-189.

Aerts, W. 1994. On the use of accounting logic as an explanatory category in narrative accounting disclosures. Accounting, organizations and Society 19 (4/5): 337-353.

Aerts, W. 2001. Inertia in the attributional content of annual accounting narratives.The European Accounting Review 10 (1): 3-32.

Aerts, W. 2005. Picking up the pieces: Impression management in the retrospective attributional framing of accounting outcomes. Accounting, Organizations and Society
30: 493-517.
Anderson, R. and Epstein, M. (1996). The Usefulness of Corporate Annual Reports to Shareholders in Australia, New Zealand and the United States: An International
Comparison. Greenwich, Connecticut: JAI Press.
Argenti, John. "Corporate planning and corporate collapse." Long Range Planning 9.6 (1976): 12-17.
Arndt, M. and Bigelow, B. (2000) 'Presenting structural innovation in an institutional environment: hospital's use of impression management', Administrative Science
Quarterly, 45(3): 494–522.
Arnold, John, and Peter Moizer. "A survey of the methods used by UK investment analysts to appraise investments in ordinary shares." Accounting and Business Research 14.55 (1984): 195-207.
Baginski, S. P., Hassell, J. M., & Hillison, W. A. (2000). Voluntary causal disclosures: Tendencies and capital market reaction. Review of Quantitative Accounting and Finance, 15(4), 371–389.
Baiman, S. 1990. Agency research in managerial accounting. A second look. Accounting Organizations and Society 15 (4): 341-347.
Bartlett, S., and R. Chandler. 1997. "The Corporate Report and the Private Shareholder: Lee and Tweedie Twenty Years on." British Accounting Review 29 (3): 245–261.
Baxter, Peter, and Julie Cotter. "Audit committees and earnings quality." Accounting & Finance 49.2 (2009): 267-290.
Beasley, M. (1996). An empirical analysis of the relation between the board of director composition and financial statement fraud. Accounting Review, 71, 443–466. Beasley, Mark S., et al. "Fraudulent financial reporting: Consideration of industry traits and corporate governance mechanisms." Accounting Horizons 14.4 (2000): 441- 454.
Beattie, V. A. and Jones, M. J. (1992). 'The use and abuse of graphs in annual reports: a theoretical framework and empirical study'. Accounting and Business Research, 22(88): 297-305.
Beattie, V. A. and Jones, M. J. (1998). Graphical Reporting Choices: Communication or Manipulation. London: ACCA.
Beattie, V. A., & Jones, M. J. (2002). The impact of graph slope on rate of change judgments in corporate reports. Abacus, 38(2), 177– 199.
Beattie, V.A. and Jones, M.J. (1999), "Australian financial graphs: an empirical study", Abacus, Vol. 35 No. 1, pp. 46-76.
Beattie, V.A. and Jones, M.J. (2000), "Changing graph use in corporate annual reports: a time-series analysis", Contemporary Accounting Research, Vol. 17 No. 2, pp. 213-26.
Benson, D. F., Brau, J. C., Cicon, J., & Ferris, S. P. (2015). Strategically camouflaged corporate governance in IPOs: Entrepreneurial masking and impression management. Journal of Business Venturing, 30(6), 839-864.
Berle, Adolf A., and C. Gardiner. "Means." The Modern Corporation and Private Property 45 (1932).
Bettman, J. R. and Weitz, B. A. (1983). 'Attributions in the board room: causal reasoning in corporate annual reports'. Administrative Science Quarterly, June: 165-83.
Beynon, M.J., Clatworthy, M.A. and Jones, M.J. (2004), "The prediction of profitability using accounting narratives : a variable precision rough sets approach", International Journal of Intelligent Systems in Accounting, Finance and Management, Vol. 12, pp. 227-42.
Blackburn VL. The effectiveness of corporate control in the US. Corporate governance: an international review. 1994 Oct 1; 2(4):196-202
Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees. "Report and recommendations of the Blue Ribbon Committee on improving the effectiveness of corporate audit committees." The Business Lawyer (1999): 1067-1095.
Bolger, A. (1994). 'Worries about family values'. Financial Times, 3 February.
Bowen, R. M., Davis, A. K., & Matsumoto, D. A. (2005). Emphasis on pro forma versus GAAP earnings in quarterly press releases: Determinants, SEC intervention and market reactions. The Accounting Review, 80(4), 1011–1038.
Bozzolan, Saverio, Charles H. Cho, and Giovanna Michelon. "Impression management and organizational audiences: The Fiat group case." Journal of Business Ethics 126.1 (2015): 143-165.
Branco, Manuel Castelo, and Lúcia Lima Rodrigues. "Corporate social responsibility and resource-based perspectives." Journal of business Ethics 69.2 (2006): 111-132

Brennan, Michael J., and Anjan V. Thakor. "Shareholder preferences and dividend policy." The Journal of Finance 45.4 (1990): 993-1018.
Brennan, Michael J., and Anjan V. Thakor. "Shareholder preferences and dividend policy." The Journal of Finance 45.4 (1990): 993-1018.
Brennan, N. M., Guillamon-Saorin, E., & Pierce, A. (2009). Impression management: Developing and illustrating a scheme of analysis for narrative disclosures – A methodological note. Accounting, Auditing & Accountability Journal, 22(5), 789–832.
Breton, G. and Taffler, R. J. (2001). 'Accounting information and analyst stock recommendation decisions: a content analysis approach'. Accounting and Business Research, 31(2): 91-102.
Brickley, James A., Clifford W. Smith, and Jerold L. Zimmerman. Organizational architecture: A managerial economics approach. Richard D. Irwin, 1996.
Burgstahler, D. and M. Eames. 2006. Management of earnings and analysts' forecasts to achieve zero and small positive earnings surprises. Journal of Business Capital in Finance and Accounting 33(5-6): 633-652.
Byrd, J. W., & Hickman, K. A. (1992). Do outside directors monitor managers? Evidence from tender offer bids. Journal of Financial Economics, 32(2), 195–221.
Byrne, J. A., 1996. "The Best and Worst Boards." Business Week, November 25.
Cadbury, Adrian. Report of the committee on the financial aspects of corporate governance. Vol. 1. Gee, 1992.
Cassar, Gavin, Self-Serving Behaviour and the Voluntary Disclosure of Capital Market Performance (November 14, 2000). Accounting Research Journal, Vol. 14, No. 2,126-137, 2001. Available at SSRN: https://ssrn.com/abstract=1404865
Cenesizoglu, T. and Timmermann, A.G. (2008), "Is the distribution of stock returns predictable?" Available at SSRN: http://ssrn.com/abstract=1107185.
Certo, S. Trevis. "Influencing initial public offering investors with prestige: Signaling with board structures." Academy of management review 28.3 (2003): 432-446. Chen, C.J.P., Jaggi, B., 2000. Association between independent non-executive directors, family control and financial disclosures in Hong Kong. Journal of Accounting and Public Policy 19, 285–310.
Cheng, E. C. M., & Courtenay, S. M. (2006). Board composition, regulatory regime and voluntary disclosure. The International Journal of Accounting, 41, 262–289.
Cho, C. H., Roberts, R. W., & Patten, D. M. (2010). The language of US corporate environmental disclosure. Accounting, Organization and Society, 35(4), 431–443.
Cho, C.H., Roberts, R.W. and Patten D.M. (forthcoming), "The language of US corporate environmental disclosure", Accounting, Organizations and Society.
Cho, In-Koo, and Joel Sobel. "Strategic stability and uniqueness in signaling games." Journal of Economic Theory50.2 (1990): 381-413.
Clarke, G. (1997), "Messages from CEOs: a content analysis approach", Corporate Communication: An International Journal, Vol. 2 No. 1, pp. 31-9.
Clatworthy, M. and M.J. Jones. 2001. The effect of thematic structure on the variability of annual report readability. Accounting, Auditing and Accountability Journal 14 (3): 311-326.
Clatworthy, M., & Jones, M. J. (2003). Financial reporting of good news and bad news: Evidence from accounting narratives. Accounting and Business Research, 33(3), 171–185.
Clatworthy, M., & Jones, M. J. (2006). Differential patterns of textual characteristics and company performance in the chairman's statement. Accounting, Auditing & Accountability Journal, 19(4), 493–511.
Courtis, J. K. (2004). Colour as visual rhetoric in financial reporting. Accounting Forum, 28(3), 265–281.
Courtis, J.K. 1986. An investigation into annual report readability and corporate riskreturn relationships. Accounting and Business Research 16 (Autumn): 285-294.
Courtis, J.K. 1995. Readability of annual reports: Western versus Asian evidence.Accounting, Auditing and Accountability Journal 8 (2): 4-17.
Courtis, J.K. 1996. Disclosure redundancy in annual reports. Accountability and Performance 2 (3): 1-16.
Courtis, J.K. 1998. Annual report readability variability: Tests of the obfuscation hypothesis. Accounting, Auditing and Accountability Journal 11 (4): 459-471.
Courtis, J.K. 2004a. Corporate report obfuscation: Artefact or phenomenon? British Accounting Review 36 (3): 291-312.
Courtis, J.K. 2004b. Colour as visual rhetoric in financial reporting. Accounting Forum 28 (3): 265-281.
Courtis, J.K. and Hassan, S. (2002), "Reading ease of bilingual annual reports", Journal of Business Communication, Vol. 39 No. 4, pp. 394-413.

Dahya, J., A. A. Lonie, and D. M. Power. "The case for separating the roles of chairman and CEO: An analysis of stock market and accounting data." Corporate Governance: An International Review 4.2 (1996): 71-77.
Daily, Catherine M., and Dan R. Dalton. "Bankruptcy and corporate governance: The impact of board composition and structure." Academy of Management journal 37.6 (1994): 1603-1617.
Davidson,W. N., Jiraporn, P., Kim,Y. S., & Nemec, C. 2004. Earnings management following duality-creating successions:
Davidson, Wallace N., et al. "Earnings management following duality-creating successions: Ethnostatistics, impression management, and agency theory." Academy of management journal 47.2 (2004): 267-275.
DeAngelo, L. (1988). 'Managerial competition, information costs, and corporate governance: the use of accounting performance measures in proxy contests'. Journal of Accounting and Economics, lO(3): 3-37.
Dechow, P. M., Huson, M. R., & Sloan, R. G. (1994). The effect of restructuring charges on executives´ cash compensation. The Accounting Review, 69(1), 138–156. Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1996). Causes and consequences of earnings manipulation: An analysis of firms subject to enforcement actions by the SEC. Contemporary Accounting Research, 13(1), 1–36.
Dierkes, Meinolf, and Ariane Berthoin Antal. "Whither corporate social reporting: Is it time to legislate?." California Management Review 28.3 (1986): 106-121.
Dominika Hadro, Karol Marek Klimczak & Marek Pauka (2017) Impression Management in Letters to Shareholders: Evidence from Poland, Accounting in Europe, 14:3, 305-330, DOI: 10.1080/17449480.2017.1378428
Donaldson, Lex, and James H. Davis. "Stewardship theory or agency theory: CEO governance and shareholder returns." Australian Journal of management 16.1 (1991): 49-64.
Eisenhardt, K. M. (1989). Agency theory: An assessment and review. Academy of Management Review, 14(1), 57–74.
Elitzur, Ramy, and Arieh Gavious. "Contracting, signaling, and moral hazard: a model of entrepreneurs, 'angels,'and venture capitalists." Journal of Business Venturing 18.6 (2003): 709-725.
Elsbach, K.D. 1994. Managing organizational legitimacy in the California cattle industry: the construction and effectiveness of verbal accounts. Administrative Science Quarterly 39 (March): 67-88.
Eng, L.L. and Mak, Y.T. (2003), "Corporate governance and voluntary disclosure", Journal of Accounting and Public Policy, Vol. 22 No. 4, pp. 325-345.
Epstein, M. J. and Pava, M. L. (1993). The Shareholders' Use of Corporate Annual Reports. Greenwich, Connecticut: JAI Press.
Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. Journal of Law and Economics, 25, 301–325.
Fama, E.F., 1980. Agency problems and theory of the firm. Journal of Political Economy 88 (2), 288–307.
Forker, J.J., 1992. Corporate governance and disclosure quality. Accounting and Business Research 22 (86), 111–124.
Frazier, K. B., Ingram, R. W. and Tennyson, B. M. (1984). 'A methodology for the analysis of narrative accounting disclosures'. Journal of Accounting Research, 22:318-31.
Garcı`a Osma, B., & Guillamo´n-Saorı´n, E. (2011). Corporate governance and impression management in annual results press releases. Accounting, Organizations and Society, 36(4–5), 187–208.
Gardner, W.L. and Martinko, M.J. (1988), "Impression management: an observational study linking audience characteristics with verbal self-presentations", Academy of Management Journal, Vol. 31 No. 1, pp. 42-65.
Gibbins, M., A. Richardson and J. Waterhouse. 1990. The management of corporate financial disclosure: Opportunism, ritualism, policies and processes. Journal of Accounting Research 28 (1): 121-143.
Gibbs, Philip A. "Determinants of corporate restructuring: The relative importance of corporate governance, takeover threat, and free cash flow." Strategic Management Journal 14.S1 (1993): 51-68.
Ginzel, L.E., Kramer, R.M. and Sutton, R.I. (1992), "Organizational impression management as a reciprocal influence process: the neglected role of the organizational audience", in Cummings, L.L. and Staw, B.M (Eds.), Research in Organizational Behavior 15, JAI Press, Greenwich, CT, pp. 227-266.
Gioia, D. A., Schultz, M. and Corley, K.G. (2000) 'Organizational identity, image, and adaptive instability', Academy of Management Review 25(1), 63–81.
Godfrey, J., P. Mather and A. Ramsay. 2003. Earnings and impression management in financial reports: The case of CEO changes. Abacus 39 (1): 95-123.
Graves, 0. **F.,** Flesher, D. L. and Jordon, R. E. (1996). 'Pictures and the bottom line: the television epistemology of US annual reports'. Accounting, Organizations and Society, 21(1): 57-88.

Griffiths, Ian. Creative Accounting: How to make your profits what you want them to be. Unwin Paperbacks, 1986.
Governance, Corporate. "Improving Competitiveness and Access to Capital in Global Markets. A report to the OECD by the Business Sector Advisory Group on Corporate Governence." Ira M. Millstein, Chairman (1998).
Guillamon-Saorin, E. 2006. Impression management in financial reporting. Evidence from the UK and Spain. Unpublished doctoral dissertation, University College Dublin.
Hackston, D. and Milne, M. J. (1996). 'Some determinants of social and environmental disclosures in New Zealand companies'. Accounting, Auditing and Accountability Journal, 9(1): 77-108.
Hair Jr, Joseph F., et al. "Black (1995), Multivariate data analysis with readings." New Jersy: Prentice Hall (1995)
Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. Journal of Accounting and Economics, 31(1/3), 405–440.
Healy, P.M. and J.M. Wahlen. 1999. A review of the earnings management literature and its implications for standard setting. Accounting Horizons 13: 365-383.
Henry, E. (2008). Are investors influenced by how earnings press releases are written? Journal of Business Communication, 45(4), 363–407.
Hermalin, Benjamin E. and Michael S. Weisbach. "Boards Of Directors As An Endogenously Determined Institution: A Survey of the Economic Literature," FRB New York - Economic Policy Review, 2003, v9 (1, Apr), 7-26.
Hermalin, Benjamin E., and Michael S. Weisbach. "The effects of board composition and direct incentives on firm performance." Financial management (1991): 101-112.
Holden, Craig W., and Avanidhar Subrahmanyam. "Long-lived private information and imperfect competition." The Journal of Finance 47.1 (1992): 247-270.
Holland, J.B. (1998), "Private disclosure and financial reporting", Accounting and Business Research, Vol. 28 No. 4, pp. 255-69.
Holthausen, R.W. 1990. Accounting method choice, opportunistic behavior, efficient contracting, and information perspectives. Journal of Accounting and Economics 12: 207-218.
Hooghiemstra, R. (2000). Corporate communication and impression management. Journal of Business Ethics, 27(1/2), 55–68.
Jensen, H., & Meckling, W. (1976). Theory of the firm: Managerial behaviour, agency costs and ownership structure. Journal of Financial Economics, 16(October), 305– 360.
Jensen, Michael C. "The modern industrial revolution, exit, and the failure of internal control systems." the Journal of Finance 48.3 (1993): 831-880.
Jessica H. Yang & Siwen Liu (2017) Accounting narratives and impression management on social media, Accounting and Business Research, 47:6, 673-694, DOI: 10.1080/00014788.2017.1322936
Johnson, W. B., & Schwartz, W. C. (2005). Are investors misled by ''pro forma'' earnings? Contemporary Accounting Research, 22(4), 915–963.
Jones, M., 1996, "Readability of annual reports: Western verus Asian evidence – a comment on contextualize" Accounting, Auditing & Accountability Journal 9(2): 86. Jones, M.J. 1988. A longitudinal study of the readability of the chairman's narratives in the corporate reports of a UK company. Accounting and Business Research 18 (72): 297-306.
Kaplan, **S.** E., Pourciau, **S.** and Reckers, P. M. J. (1990). 'An examination of the effect of the president's letter and stock advisory service information on financial decisions'. Behavioral Research in Accounting, 2: 63-92.
Kennedy, P. (1985) A Guide to Econometrics, 2nd edn. Cambridge, MA: The MIT Press.
Khanna, K., and H. Irvine. 2012. "Communicating the Financial Impact of the Global Financial Crisis: A Study of the Annual Reports of Australian NFP Aid and Development Organizations." Paper presented at UniSA (CAGS) seminar series, Perth, May.
Kohut, G.F. and Segars, A.H. (1992), "The president's letter to stockholders: an examination of corporate communication strategy", Journal of Business Communication, Vol. 29 No. 1, pp. 7-21.
Kreps DM, Sobel J. Signalling. Handbook of game theory with economic applications. 1994 Jan 1;2:849-67.
Krische, S. D. (2005). Investors' evaluations of strategic prior-period benchmark disclosures in earnings announcements. The Accounting Review, 80(1), 243–268.
La Porta, Rafael, et al. "Investor protection and corporate governance." Journal of financial economics 58.1 2000): 3-27.

Lang, M., & Lundholm, R. (2000). Voluntary disclosure and equity offerings: Reducing information asymmetry or hyping the stock? Contemporary Accounting Research, 17(4), 623–662.
Leary, M. R., & Kowalski, R. M. (1990). Impression management: A literature review and two-component model. Psychological Bulletin, 107(1), 34–47.
Lee, Thomas Alexander, and David P. Tweedie. The Institutional Investor and Financial Information: A report sponsored by the Research Committee of the Institute of Chartered Accountants in England and Wales. The Institute, 1981 Linderman, Alf. "A Comparative Analysis." Theory, method, and practice in computer content analysis 16 (2001): 97.
Linsley, Philip, and Peter Kajuter. "Restoring reputation and repairing legitimacy: a case study of impression management in response to a major risk event at Allied Irish Banks plc." International Journal of Financial Services Management 3.1 (2008): 65-82.
Lipton, Martin, and Jay W. Lorsch. "A modest proposal for improved corporate governance." The business lawyer (1992): 59-77.
Livesey, S. and Kearins, K. (2002), "Transparent and caring corporations?", Organization and Environment, Vol. 15 No. 3, pp. 233-258.
Marrakchi Chtourou, Sonda, Jean Bedard, and Lucie Courteau. "Corporate governance and earnings management." (2001).
Mather, P., & Ramsay, A. (2007). Do board characteristics influence impression management through graph selectivity around CEO changes? Australian Accounting Review, 17(2), 84–96.
Mather, P., Ramsay, A. and Steen, A. (2000), "The use and representational faithfulness of graphs in IPO prospectuses", Accounting, Auditing and Accountability Journal, Vol. 13 No.1, pp. 65-83.
Matsumoto, D., Pronk, M., & Roelofsen, E. (2006). Do analysts mitigate optimism by management? Working paper. University of Washington, Tilburg University and RSM/Erasmus University.
McKinstry, **S.** (1996). 'Designing the annual reports of Burton PLC from 1930 to 1994'. Accounting. Organizations and Society, 2 1 (I): 89-1 1 1.
Merkl-Davies, D. M., & Brennan, N. (2007). Discretionary disclosure strategies in corporate narratives: Incremental information or impression management? Journal of Accounting Literature, 26, 116–196.
Merkl-Davies, D.M. and Brennan, N.M. (2011) 'A conceptual framework of impression management: new insights from psychology, sociology and critical perspectives', Accounting and Business Research, 41(5): 415-437.
Merkl-Davies, D.M. and Koller, V. (2012) '"Metaphoring" people out of this world: a critical discourse analysis of a chairman's statement of a UK defence firms', Accounting Forum,36(3), 178-193.
Miller, Toyah, and María del Carmen Triana. "Demographic diversity in the boardroom: Mediators of the board diversity–firm performance relationship." Journal of Management studies 46.5 (2009): 755-786
Milne, M. J., & Adler, R. A. (1999). Exploring the reliability of social and environmental disclosures content analysis. Accounting, Auditing & Accountability Journal, 12(2), 237–256.
Morris, Richard D. "Signalling, agency theory and accounting policy choice." Accounting and business Research 18.69 (1987): 47-56.
Neu, D. (1991). Trust, impression management and the auditing profession. Critical Perspectives on Accounting, 2(4), 295–313.
Neu, D. and Wright, M. (1992). 'Bank failures, stigma management and the accounting establishment'. Accounting, Organizations and Society, 17(7): 645-65.
Neu, D., Warsame, H. A., & Pedwell, K. A. (1998). Managing public impressions: Environmental disclosures in annual reports.Accounting, Organizations and Society, 23(3), 265–282.
OECD, OCDE. "The OECD principles of corporate governance." Contaduría y Administración 216 (2004).
Ogden, S. and Clarke, J. (2005) 'Customer disclosures, impression management and the construction of legitimacy: corporate reports in the UK privatized water industry', Accounting, Auditing & Accountability Journal, 18(3): 313–345.
Osma, Beatriz García, and Belén Gill-de-Albornoz Noguer. "The effect of the board composition and its monitoring committees on earnings management: Evidence from Spain." Corporate Governance: An International Review 15.6 (2007): 1413-1428.
Pearce, John A., and Shaker A. Zahra. "Board composition from a strategic contingency perspective." Journal of management studies 29.4 (1992): 411-438.
Piot, Charles, and Rémi Janin. "External auditors, audit committees and earnings management in France." European accounting review 16.2 (2007): 429-454.
Preston, A. M., Wright, C., and Young, J. J. (1996). 'Imag[in]ing annual reports'. Accounting, Organizations and Society, 21(1): 113-137.

Rechner, Paula L., and Dan R. Dalton. "CEO duality and organizational performance: A longitudinal analysis." Strategic Management Journal 12.2 (1991): 155-160.
Reeb, David, and Arun Upadhyay. "Subordinate board structures." Journal of Corporate Finance 16.4 (2010): 469-486.
Revsine, L. (1991). 'The selective financial misrepresentation hypotheses. Accounting Horizons, December: 16-27.
Rezaee, Z. 2005. Causes, consequences, and deterrence of financial statement fraud.Critical Perspectives on Accounting 16 (3): 277-298.
Ringle, Christian M., Dirceu Da Silva, and Diógenes de Souza Bido. "Structural equation modeling with the SmartPLS." (2015).
Ross, S. A. (1979). Disclosure regulation in financial markets: Implications of modern finance theory and signalling theory. New York: McGraw-Hill.
Ross, Stephen A. "The determination of financial structure: the incentive-signalling approach." The bell journal of economics (1977): 23-40.
Rutherford, B. (2003). Obfuscation, textual complexity and the role of regulated narrative accounting disclosure in corporate governance. Journal of Management and Governance, 7(2), 187–210.
Salancik, G. R., & Meindl, J. R. (1984). Corporate attributions as strategic illusions of management control. Administrative Science Quarterly, 29(2), 238–254.
Schaffer, B.S. 2002. Board assessments of managerial performance: An analysis of attribution processes. Journal of Managerial Psychology 17 (2): 95-115.
Schipper, **K.** (1989). 'Commentary on earnings management'. Accounting Horizons, December: 91-102.
Schlenker, B. R. (1980). Impression management: The self-concept, social identity, and interpersonal relations. Belmont: Brooks-Cole
Schrand, C., & Walther, B. R. (2000). Strategic benchmarks in earnings announcements: The selective disclosure of prior-period earnings components. The Accounting Review, 75(2), 151–177.
Segars, A.H. and Kohut, G.F. (2001), "Strategic communication through the World Wide Web: an empirical model of effectiveness in the CEO's.
Short, Jeremy C., and Timothy B. Palmer. "Organizational performance referents: An empirical examination of their content and influences." Organizational Behavior and Human Decision Processes 90.2 (2003): 209-224.
Sloan, Richard G. "Financial accounting and corporate governance: a discussion." Journal of accounting and economics 32.1-3 (2001): 335-347.
Smith, D. Brent, and Chet Robie. "The implications of impression management for personality research in organizations." Personality and organizations (2004): 111-138
Smith, M. and R. Taffler. 1992a. The chairman's report and corporate financial performance. Accounting and Finance 32: 75-90.
Smith, M. and R.J. Taffler 2000. The chairman's statement: A content analysis of discretionary narrative disclosures. Accounting, Auditing and Accountability Journal 13 (5): 624-646.
Smith, M. and Taffler, R. J. (1995). 'The incremental effect of narrative accounting information in corporate annual reports'. Journal of Business Finance and Accounting, 22(8): 1195-1210.
Smith, M., & Taffler, R. J. (1992). The chairman's statement and corporate financial performance. Accounting and Finance, 32(2), 75–90.
Staw, B. M., McKechnie, P. I., & Puffer, S. M. (1983). The justification of organizational performance. Administrative Science Quarterly, 28(4), 582–600.
Suazo, Mark M., Patricia G. Martínez, and Rudy Sandoval. "Creating psychological and legal contracts through human resource practices: A signaling theory perspective." Human Resource Management Review 19.2 (2009): 154-166.
Subramanian, R., Insley, R. G., & Blackwell, R. D. (1993). Performance and readability: A comparison of annual reports of profitable and unprofitable corporations. The Journal of Business Communication, 30(1), 49–61.
Sydserff, R. and P. Weetman. 1999. A texture index for evaluating accounting narratives: An alternative to readability formulae. Accounting, Auditing and Accountability Journal 12 (4): 459-488.
Toms, J. Steve. "Firm resources, quality signals and the determinants of corporate environmental reputation: some UK evidence." The British Accounting Review 34.3 (2002): 257-282.
Tweedie, D.P. and Whittington, G. (1990), "Financial reporting: current problems and their implications for systematic reform", Accounting and Business Research, winter, pp. 87-102.
Vafeas, N. (1999). Board meeting frequency and firm performance. Journal of Financial Economics, 53, 113–142.

Verrecchia, R. “Essays on Disclosure.” Journal of Accounting and Economics 32 (2001): 97-180.
Watts, R. L. and Zimmerman, J. L. (1986). Positive Accounting Theory. Englewood Cliffs, NJ: Prentice Hall.
Watts, R. L. and Zimmerman, J. L. (1990). ‘Positive accounting theory: a ten year perspective’. The Accounting Review, 65(1): 13 1-56.
Weetman, P. and Collins, W. (1996). Operating and Financial Review: Experiences and Exploration. Edinburgh: Institute of Chartered Accountants of Scotland.
Whittington, R., Yakis-Douglas, B., & Ahn, K. (2016). Cheap talk? Strategy presentations as a form of chief executive officer impression management. Strategic Management Journal, 37(12), 2413-2424.
Xie, Biao, Wallace N. Davidson III, and Peter J. DaDalt. "Earnings management and corporate governance: the role of the board and the audit committee." Journal of corporate finance 9.3 (2003): 295-316.
Yuthas, K., R. Rogers and J. F. Dillard. 2002. Communicative action and corporate annual reports. Journal of Business Ethics 41 (1-2): 141-157.
Zhang, Y., Wiersema, M. F. 2009. Stock market reaction to CEO certification: The signaling role of CEO background. Strategic Management Journal, 30: 693-710

Statistical Tables

Table 1

Pearson Correlations

		Pearson's r
IMQL	- IMQNS	0.074
IMQL	- IMQN	0.094
IMQL	- PrID	0.117
IMQL	- ACM	-0.395***
IMQL	- BZ	-0.242*
IMQL	- BM	-0.304**
IMQL	- RS	-0.146
IMQL	- PRNC	-0.103
IMQL	- ROE	0.039
IMQL	- ln (Size)	-0.262*
IMQL	- PNNY	-0.137
IMQL	- NIFTY50	-0.262*
IMQNS	- IMQN	0.981***

Pearson Correlations

		Pearson's r
IMQNS	- PrID	0.139
IMQNS	- ACM	0.165
IMQNS	- BZ	0.226*
IMQNS	- BM	0.022
IMQNS	- RS	-0.133
IMQNS	- PRNC	0.019
IMQNS	- ROE	-0.015
IMQNS	- ln (Size)	0.153
IMQNS	- PNNY	-0.360***
IMQNS	- NIFTY50	0.199
IMQN	- PrID	0.134
IMQN	- ACM	0.150
IMQN	- BZ	0.188
IMQN	- BM	0.020
IMQN	- RS	-0.152
IMQN	- PRNC	0.013
IMQN	- ROE	-0.001
IMQN	- ln (Size)	0.130
IMQN	- PNNY	-0.340**
IMQN	- NIFTY50	0.211
PrID	- ACM	-0.499***
PrID	- BZ	-0.002
PrID	- BM	-0.431***
PrID	- RS	0.312**
PrID	- PRNC	0.629***
PrID	- ROE	0.160
PrID	- ln (Size)	-0.119
PrID	- PNNY	-0.032
PrID	- NIFTY50	0.112
ACM	- BZ	0.128
ACM	- BM	0.640***
ACM	- RS	-0.355***
ACM	- PRNC	-0.254*
ACM	- ROE	-0.059
ACM	- ln (Size)	0.556***
ACM	- PNNY	-0.233*
ACM	- NIFTY50	0.272*
BZ	- BM	0.094
BZ	- RS	-0.053
BZ	- PRNC	-0.015
BZ	- ROE	-0.066
BZ	- ln (Size)	0.285**
BZ	- PNNY	-0.125
BZ	- NIFTY50	0.165
BM	- RS	-0.336**
BM	- PRNC	-0.238*
BM	- ROE	-0.032
BM	- ln (Size)	0.457***
BM	- PNNY	-0.159
BM	- NIFTY50	0.168
RS	- PRNC	0.336**
RS	- ROE	0.079
RS	- ln (Size)	-0.137
RS	- PNNY	0.284**
RS	- NIFTY50	0.065
PRNC	- ROE	0.058
PRNC	- ln (Size)	-0.070
PRNC	- PNNY	-0.033
PRNC	- NIFTY50	0.039

Pearson Correlations

		Pearson's r
ROE	- ln (Size)	-0.215*
ROE	- PNNY	-0.051
ROE	- NIFTY50	0.117
ln (Size)	- PNNY	-0.049
ln (Size)	- NIFTY50	0.408***
PNNY	- NIFTY50	-0.041

* p < .05, ** p < .01, *** p < .001

Table 2. Descriptive Statistics

Variable	Mean	StDev	Minimum	Median	Maximum	Skewness	Kurtosis
IMQL	0,5743	0,2414	-0,3125	0,5489	1,0000	-0,46	1,86
IMQNS	0,5057	0,5331	-1,0000	0,7619	1,0000	-0,47	-1,08
IMQN	0,4929	0,5409	-1,0000	0,6364	1,0000	-0,51	-0,78
ACM	6,365	2,632	4,000	6,000	16,000	1,37	1,67
BZ	11,071	2,781	4,000	11,000	18,000	0,01	0,10
BM	6,506	2,922	4,000	5,000	17,000	1,69	2,57
PrID	0,4149	0,1832	0,0000	0,4545	0,7778	-0,71	0,24
RS	0,6588	0,4769	0,0000	1,0000	1,0000	-0,68	-1,57
PRNC	0,7529	0,4339	0,0000	1,0000	1,0000	-1,19	-0,59
ROE	14,41	19,91	-59,07	12,61	131,80	1,84	15,71
ln (Size)	4,2937	0,7653	2,8277	4,2730	6,2923	0,19	-0,44
NIFTY50	0,3176	0,4683	0,0000	0,0000	1,0000	0,80	-1,40
PNNY	0,4000	0,4928	0,0000	0,0000	1,0000	0,42	-1,87

Table 3. Regression

Model Fit Measures

				Overall Model Test			
Model	R	R^2	Adjusted R^2	F	df1	df2	p
IMQL	0.700	0.490	0.421	7.12	10	74	< .001

Model Coefficients

Model	Predictor	Estimate	SE	Stand. Estimate	t	p
IMQL	Intercept	1.0156	0.09398		10.808	< .001
	PrID	-0.0642	0.08342	-0.0854	-0.770	0.444
	ACM	-0.0302	0.00713	-0.5772	-4.243	< .001
	BZ	-0.0102	0.00443	-0.2061	-2.307	0.024
	BM	-0.0111	0.00538	-0.2350	-2.058	0.043
	RS	-0.0831	0.02742	-0.2877	-3.032	0.003
	PRNC	-0.1300	0.04571	-0.2608	-2.843	0.006
	ROE	5.91e-4	6.21e-4	0.0853	0.951	0.344
	SIZE (Log TA)	0.0427	0.02150	0.2369	1.984	0.051
	PNNY	-0.0649	0.02593	-0.2320	-2.502	0.015

Model Coefficients

Model	Predictor	Estimate	SE	Stand. Estimate	t	p
	NIFTY50	-0.0353	0.02842	-0.1198	-1.240	0.219

Model Fit Measures

				Overall Model Test			
Model	R	R^2	Adjusted R^2	F	df1	df2	p
IMQN's	0.454	0.206	0.0992	1.93	10	74	0.055

Model Coefficients

Model	Predictor	Estimate	SE	Stand. Estimate	t	p
IMQN's	Intercept	0.38564	0.17565		2.1955	0.031
	PrID	0.26526	0.15592	0.23541	1.7013	0.093
	ACM	0.01278	0.01332	0.16286	0.9595	0.340
	BZ	0.01204	0.00828	0.16223	1.4550	0.150
	BM	-0.00653	0.01006	-0.09237	-0.6485	0.519
	RS	-0.04343	0.05126	-0.10032	-0.8473	0.400
	PRNC	-0.08819	0.08544	-0.11812	-1.0322	0.305
	ROE	4.44e-5	0.00116	0.00428	0.0382	0.970
	SIZE (Log TA)	0.00362	0.04019	0.01342	0.0901	0.928
	PNNY	-0.11253	0.04847	-0.26860	-2.3216	0.023
	NIFTY50	0.04145	0.05312	0.09402	0.7804	0.438

Model Fit Measures

				Overall Model Test			
Model	R	R^2	Adjusted R^2	F	df1	df2	p
IMQN	0.431	0.186	0.0758	1.69	10	74	0.099

Model Coefficients

Model	Predictor	Estimate	SE	Stand. Estimate	t	p
IMQN	Intercept	0.39828	0.17705		2.2496	0.027
	PrID	0.24700	0.15716	0.22029	1.5717	0.120
	ACM	0.01031	0.01342	0.13208	0.7682	0.445
	BZ	0.01015	0.00834	0.13735	1.2162	0.228
	BM	-0.00568	0.01014	-0.08076	-0.5597	0.577
	RS	-0.04917	0.05166	-0.11414	-0.9517	0.344
	PRNC	-0.08424	0.08612	-0.11338	-0.9782	0.331
	ROE	9.47e-5	0.00117	0.00918	0.0810	0.936
	SIZE (Log TA)	0.00632	0.04051	0.02353	0.1560	0.876
	PNNY	-0.10616	0.04886	-0.25462	-2.1727	0.033
	NIFTY50	0.04514	0.05354	0.10289	0.8430	0.402

Table 4

Summary of multiple regression results

Hypothesis support

Hypotheses	*Predicted sign*	*Actual sign*		
		IMQL	**IMQN's**	**IMQN**
(H1) – PrID	*(-)*	*NA*	*(+) Weak*	*NA*
(H2) – Role separation	*(-)*	*(-) Strong*	*NA*	*NA*
(H3) – PRNC	*(-)*	*(-) Strong*	*NA*	*NA*
(H4) – BM	*(-)*	*(-)Moderate*	*NA*	*NA*
(H5) – NACM	*(-)*	*(-)Moderate*	*NA*	*NA*
(H6) – BZ	*(-)*	*(-)Moderate*	*NA*	*NA*
ROE	*(-)*	*NA*	*NA*	*NA*
SIZE	*(-)*	*(+)Moderate*	*NA*	*NA*
PNNY	*(-)*	*(-)Strong*	*(-)Moderate*	*(-)Moderate*
NIFTY50	*(-)*	*NA*	*NA*	*NA*

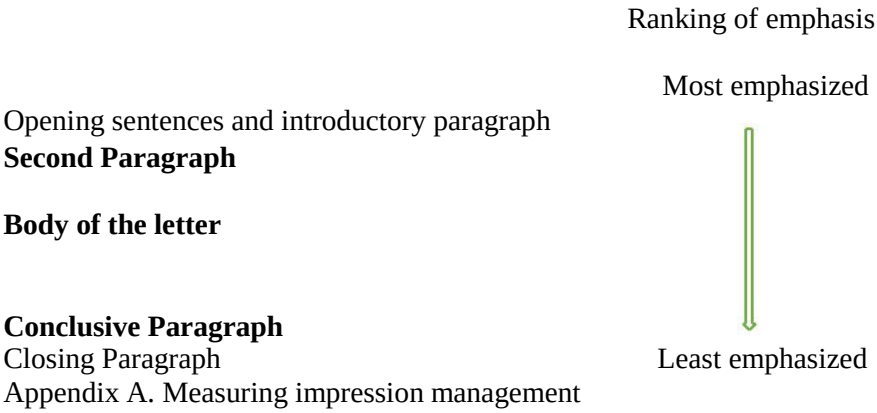
Strong = significant at .01 level, Moderate = significant at .05 level, Weak = significant at .10 level and NA= Not associated at significant level.

APPENDIX OF IM

Table 1. Measurement of dependent and independent variables

Variable	Proxy	Measurement
Dependent variables		
IMQL	Impression Management Qualitative score	Number of positive qualitative items less number of negative qualitative items divided by total qualitative composite score.
IMQNS	Impression management Quantitative Score with selectivity	Number of positive quantitative items (including selectivity) less number of negative quantitative items (including selectivity) divided by total quantitative composite score.
IMQN	Impression management Quantitative Score without selectivity	Number of positive quantitative items (excluding selectivity) less number of negative quantitative items (excluding selectivity) divided by total quantitative composite score.
Independent variables/ Corporate governance factors		
ACM	Audit committee meetings	Number of Audit committee meetings held during the financial year
BZ	Board size	Number of board members
BM	Board meetings	Number of board meetings held during the financial year
PrID	Proportion of independent directors	Proportion of independent directors within the board
RS	Role separation	Takes value of 1 if the position of chairman and CEO/Managing Director is held by two separate individuals 0 otherwise.
PRNC	Presence of Nomination and Remuneration committee	Takes the value of 1 if there exist a remuneration and Nomination committee within the board, 0 otherwise.
Control variables		
ROE	Return on Equity	Return on Equity of the companies for the financial year ended.
NIFTY50	NIFTY 50 listed company	Takes the value of 1 if the company is listed under NIFTY50 list; 0 otherwise.
ln (Size)	Size of the company	Logarithm of total assets
PNNY	Positive news for next year	Takes the value 1 if the firm has to report positive news focusing towards following year, 0 otherwise.

A. Visual emphasis or degree of prominence (adapted from Brennan et al 2009)



Appendix A. Measuring impression management

Table 1. **Method to measure impression management** Adapted from Brennan et al. (2009).

Technique	Object of technique	Measure
(1) Disclosure tone	Keywords /quantitative amounts	Number of positive and negative keywords Number of quantitative positive and negative amounts
(2) Emphasis	(a) Location / positioning / presentation of disclosure; (b) Repetition of statements/ quantitative amounts (c) Reinforcement of keywords	Most-, Next-most, Least-emphasized section Number of positive and negative repetitions of statements Number of positive and negative repetitions of amounts
(3) Performance comparisons	Quantitative amounts	Benchmark, Prior year amount, Both
(4) Selectivity	Quantitative amounts	High, Medium and Low level of selectivity

Table 2: Method for calculating qualitative composite impression management scores for keywords/statements (adapted from Brennan et al 2009)

Measure	Weighting
1. Thematic – keywords/statements	1.0
2. Emphasis – Location: Most-, next-most, least-emphasized	1.0/0.5/0.0
3. Emphasis – Repetition (Statements only)	0.5
4. Emphasis – Reinforcement (Keywords only)	0.5
5. Maximum possible composite score per keyword/statement	2.5
6. Minimum possible composite score per keyword/statement	1.0

Note: the score will be either positive (+) or negative (-) depending on whether the keyword is positive/negative

Table 3: Method for calculating quantitative composite impression management scores for amounts
(adapted from Brennan et al 2009)

Measure	Selectivity applies Weighting	No selectivity Weighting
1. Disclosure of quantitative performance monetary and Non-monetary amounts	1.0	1.0
2. Selectivity - highest/medium/lowest category of amounts from which selection can be made	1.0/0.5/0.0	
3. Emphasis – Location: Most-, next-most, least-emphasized	1.0/0.5/0.0	1.0/0.5/0.0
4. Emphasis – Repetition	0.5	0.5
5. Performance comparisons	0.5	0.5
Maximum possible composite score per quantitative amount	4.0	3.0
Minimum possible composite score per quantitative amount	1.0	1.0

Note: the scores will be either positive (+) or negative (-) depending on whether the amount is positive/negative

Table 4: Calculating bias using quantitative disclosures (adapted from Brennan et al 2009)

Scenario

Assume the chairperson letter on which this example is based has disclosed six positive quantitative amounts and four negative quantitative amounts. Three positive quantitative amounts are located in the first paragraph (i.e., most-emphasized location) of the press release. Two positive quantitative amounts are located in the middle of the press release (i.e., next-most-emphasized location), while the remaining one positive quantitative amounts and the four negative quantitative amounts are in the last paragraph (i.e., least-emphasized location) of the letter. For simplicity, the letter contains no repetition of quantitative amounts, no selectivity and includes no performance comparisons.

Measure	**Positive Amount**	**Negative Amount**	**Total Amounts**
Number of quantitative disclosures	6	4	10
Composite impression management score	**Positive Score**	**Negative score**	**Total score**
(1) Disclosure of quantitative performance monetary and non-monetary amounts	6	4	10
(2) (a) Emphasis – Location:			
- Most	3 x 1	0	3
- Next-most	2 x 0.5	0	1
- Least-emphasized	1 x 0.0	4 x 0.0	0
(b) Emphasis – Repetition	0	0	0
(3) Performance comparisons	0	0	0
(4) Selectivity - highest/medium/lowest category of amounts from which selection can be made	0	0	0
Total composite impression management score	**10**	**4**	**14**

Calculating Bias score

10 Positive composite score – 4 Negative composite score = 6 Net positive composite score/14

Total composite score = + 0.43

Key: +1 = completely positively biased; –1 = completely negatively biased; 0 = no bias

Table 5. Calculating impression management score using qualitative disclosures (adapted from Brennan et al 2009).

Assume the chairperson letter on which this example is based has disclosed six positive and four negative keywords. One of the keywords is located in the most emphasized section of the letter, six are placed in the next-most emphasized section and four are located in the least-emphasized section of the letter. One positive statement was repeated and four keywords were reinforced.

Measure	**Positive Keywords**	**Negative keywords**	**Total keywords**
Disclosures			
Total keywords disclosed	6	4	10
Composite score			
(1) Disclosure of tone	6	4	10
(2)(a) Emphasis – Location:			
– Most	1 x 1	0	1
– Next-most	4 x 0.5	2 x 0.5	1
– Least-emphasized	3 x 0.0	1x 0	0
(2)(b) Emphasis – Repetition of statements	1 x 0.5	0	0.5
(2)(c) Emphasis – Reinforcement of keywords	3 x 0.5	0	1.5
Total composite score	**11**	**5**	**14**

Calculating Bias score

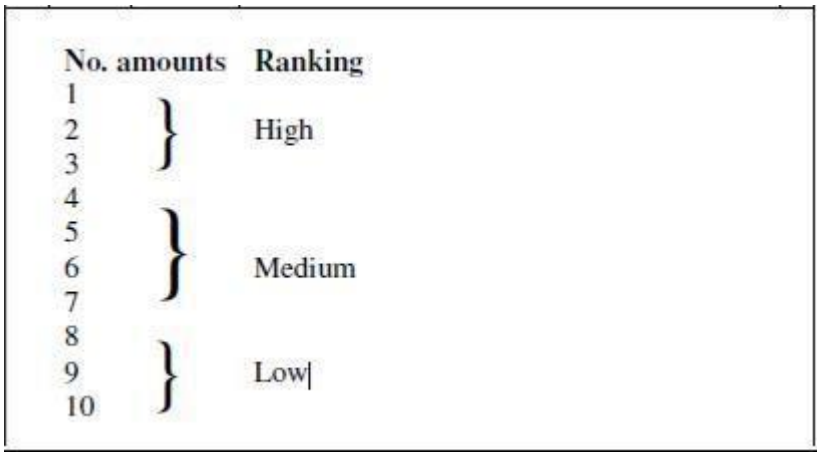
11 Positive composite score – 5 Negative composite score = 6 Net positive composite score/14

Total composite score = + 0.43

Key: +1 = completely positively biased; –1 = completely negatively biased; 0 = no bias

B. <u>The categorization of selectivity, assuming ten earnings amounts are disclosed in the profit and loss account</u> <u>(adapted from Brennan et al 2009)</u>

Measuring selectivity: Assigning categories



Numbers to identify the total possible profit/earnings per share amounts from which to select for disclosure in the chairman's letter, ranked in order of size

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SELECTIVITY: Selection of amounts from the P&L account

1. <u>Trading profit before goodwill amortization and exceptional,</u>
2. <u>Trading profit post exceptional</u>
3. <u>Gross Operating Profit</u>
4. <u>Net Operating profit</u>
5. <u>Earnings before interest, taxes, depreciation and amortization</u>
6. <u>Earnings before Interest and Taxes</u>
7. <u>Earnings before Tax</u>
8. <u>Profit After Tax</u>
9. <u>Profits for the year attributable to ordinary shareholders</u>
10. <u>Retained Earnings</u>

The Effect of Board's Quality on Performance: an Indian Evidence

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Abstract

We measure the relation between the qualities of the boards with performance of the firm. We rank the board in terms of score defined by self-created index for 150 Indian firms in terms of four broad categories of the board quality. Drawing on the classical agency theory, various statistical model of univariate and multivariate nature were used in order to analyze the impact of board's quality on firm performance. The performance of the firm were measured using two broad categories of traditional accounting based measures and value creation based measures. We find there exist a close association amid the Board efficiency and the performance of the firm when evaluated using traditional performance measures, such as Price to book value, market to sales ratio while, Tobin's Q is negatively associated. Moreover, the association is much stronger to be found when the efficiency effect is captured by market value performance measures in the form of Economic value added, Market value added and Cash flow value of the company.

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1. Introduction

This paper investigates the association between a set of board quality and the financial performance of Indian companies listed on the National Stock Exchange (NSE). Specifically, we examine if the better-termed quality of the board of these firms do have any consequences in terms of generating higher financial performance. Boards tend to be very important for the efficient working of corporations in an internationalized and dynamic environment.

Conventionally boards perform and helps the corporation through diverse range of duties, including, supervising the activity of the management in order to reduce any opportunist behavior and control agency cost (Shleifer & Vishny, 1997). Especially, advising and counseling to the Chief Executive Officer (Vancil, 1987), start and complete the designation of management (Hermalin & Weisbach, 1998), and giving value able yet guileful command for the firm (Tricker, 1984; and Kemp, 2006), being resourceful by equipping and assigning distinct resources (Hendry & Kiel, 2004).

There exist an inherent association amid boards of directors and the firm performance (Jensen (1993). Specifically, he claims, "the board, at the apex of the internal control system, has the final responsibility for the functioning of the firm" (Jensen (1993; p.49). The board of directors are selected by the owners or shareholders of the corporation in order to protect their interest. Apart from supervising the corporations projected cases and initiatives they have the authority to choose and if required remove the organizations managers. Specifically, the board of director's are seen as the most crucial aspects for supervising in public sector firms in order to assess the management activity.

The wellbeing of our economies, society and organizations depends on identifying how boards can effect firm performance (Nicholson and Kiel, 2004). Previous literatures that analyzes the board characteristics and the performance of the firms can be broadly categorized into two categories of which the first outlook denotes analyzing individual quality of the board that influences the separate activity, and thus the overall impact that affects the Corporate Performance. Individual quality that may also include independence of directors, role duality, Board committees etc. Meanwhile, the second outlook analyzes the relationship amid board characteristics and corporate performance directly (Bhagat et. al 2002). The former approach's intention is to examine the effect of an individual factor of the Board Quality with respect to the overall performance of an organization.

This outlook is very plain and smooth while it also gives the potentiality of straightforward and tractable data so could provide statistically robust result. Whereas, the latter approach ensures a complete scenario or the platform with respect to the quality of board and performance of the firm but has the challenge of endogeniety and constructive statistical argument (Bhagat et. al 2002). This study while using the second approach also tries to get the statistically significant result using univariate and multivariate analysis.

Most of the previous studies tries to capture the performance of the firms using the traditional accounting based performance (Dalton et al, 1998, Eisenberg et al, 1998, Bhagat and Black, 2000) while there is very limited studies providing information with respect to the Market Based Value measures (Adjaoud et. al 2007). Whereas for India, there is no scientific paper, which gives the Market based valuation of the performance while analyzing the quality of Board from holistic point of view.

For an emerging economy like India, both the valuation and the contracting role of accounting information have important implications. Considering the way the quality of these information is having an effect by the quality of the board's characteristics is in the better interest for investors as well as regulators. Most of the prior literature have studied on the association amid integrated Corporate Governance mechanism and financial performance of the corporations, upto now has been, concentrated particularly on the advanced and developed economies and stock market of Europe, America and Asia-Pacific (Black et al., 2006a, b; Beiner et al., 2006; Henry, 2008; Cheng et al., 2008).

Within the Indian context, a number of previous studies have examined the effect of individual corporate governance mechanisms on corporate performance (Sarkar et al 2009, Kumar et.al 2012). As per our knowledge, this would be the first study to conduct an examination of the holistic version of board quality and its association with the Indian Corporate Performance.

The core fabric of the corporate sector has a major challenge arising from the separation of the owners and its Managers giving rise to classical agency conflict. Despite corporate governance, system has managed immensely to curtail the agency conflict associated amid the separation of ownership and control (Denis, 2001). However, the board of directors are considered as the primary means of the shareholders in order to defend their interest as opposed to the managers who may act as opposed to their interests. The board of directors are seen as the fundamental structure for the corporate governance especially within the firms, which has diffused shareholding (Romano (1996).

According to Daily et al. (2003, p. 372) “The board of directors is the most central internal governance mechanism”. Even the media and the major business critics mostly view the board of directors as the major line of defense or the corporate governance structure against the challenge of ownership and control separation, while other aspects comparatively are given very less attention. According to Nicholson and Kiel, (2004), a string of investigation, studies and professional reports proposing governance reform have taken place due to the stress on the board of directors.

Intellectuals from diverse areas of organization theory (Johnson, 1997), economics (Tirole, 2001; Jensen and Meckling, 1976), finance (Fama, 1980), strategic management (Boyd, 1995), law (Richards and Stearn, 1999), and sociology (Useem, 1984) have all made additions to the corporate governance research account.

As a result, we have number of theories related to corporate governance, originating from these sources including of resource dependence theory, agency theory, stakeholder theory, stewardship theory, and institutional theory as the forefront theories from theoretical perspectives. Since the board is directly responsible with the supervision of the management, according to agency theory the board of directors must consider a competent regulation. The performance of the board with respect to its effective monitoring is affected by its various characteristics like its size, diversity, culture, composition, role duality, and transparency process.

Even though, the legal system in India gives to the investor one of the best system for their protection globally, there is fundamental process of pyramiding and tunneling among the business giants in the country, along with the copious reporting obligations (Chakraborty et al 2007). Nevertheless, the banking industry within the country has one of the lowest percentage of non-performing assets; indicating the practice of corporate fraud and tunneling are not out of control (Chakraborty et al 2007).

As with majority of the economies, corporate governance issues are multi-dimensional in India as well. According to Topalova (2004), the top 500 market value corporations in India, holds for more than 90% of the market capitalization of the Bombay Stock Exchange (BSE), and thus discloses further that almost 60% of these corporations (and 65% of total market capitalization), belongs to “business groups” or being termed as conglomerates. As an emerging market, ownership of firms is relatively concentrated in India (Subramanian, 2006)**.** It is apparent that there is a strong influence within the Indian corporate sector of the family-run business groups or such conglomerates (Chakrabarty et. al 2007).

Under such scenarios, it is very crucial to maintain a flawless system of the Corporate Governance to safeguard the interest of the minority shareholders and the overall stakeholders in general. In these situations, the board being termed as the primary line of defense for the shareholders becomes an interesting research area. The main findings of this study is directed to calculate the impact of the Boards quality as a whole which is calculated with the help of self-created index of the top 150 Indian Listed firms on the overall performance of the company calculated with the help of Both traditional accounting measures and market value based measures.

Especially, the study attempts to establish the links for the following question: If the quality of the board has any influence on the comprehensive performance of the corporations? If the quality of the board has any relationship with the traditional accounting based earnings measures? If there is any impact of Boards quality towards the market based measure of evaluating performance of EVA,

MVA is used for corporations? Does the Quality of the Board has any impact on the Cash value based measures such as CFROTA? Is Board's quality associated with the liquidity of the corporation? Does the performance of traditional measures also reflects in terms of Cash Flow of the organization analyzed or if the performance of traditional measures is positively associated with the CFROTA (Total Shareholder returns) of the firms?

In this research, the main argument within the context of Agency theory contributing the quality of the board towards the performance in the light of the various performance measures including that of the Cash measures, this paper contributes in several ways. First, using Board Quality data collected from annual reports and databases, we construct an integrated Board Quality index for a sample of 150 NSE -listed corporations for the year 2011/2012. Our index consists of four broad categories of Board quality for Indian corporations with 21 items. Second, we provide evidence on the association between Board Quality and financial performance for NSE-listed corporations.

This also extends the international evidence to Indian corporate context. Finally, and distinct from prior studies, we offer evidence on how board Quality with Indian context-specific affirmative action and CG Provisions by the existing governance system affect the financial performance of NSE Listed corporations in the light of Market based value performance measures and its differentiation from the traditional accounting measures of performance. Our results shows the quality of the board is one of the important determinant that explains the performance of the firm. The result is more robust for the market based performance measures compared to that of its accounting measures counterpart.

The remainder of the paper is organized as follows. Section 2 provides an overview of the existing research for the related studies. Section 3 develops the link between Board Quality and financial performance and thus the hypotheses to be tested. Section 4 describes the data and research methodology. Section 5 reports empirical results, while section summarizes and concludes.

2. Literature Review

Most of the prior literatures analyzing the corporate governance issues globally focused mainly on country-specific differences in legal tranches and institutional contexts. Due to idiosyncrasies that exist in the legal origins over the countries (La Porta, Lopez-de- Silanes, Shleifer, and Vishny 1998), the laws made to safeguard the interest of the investors deviate from country to country. The impact of these origins have been of higher influence as it also affects through its enforcement to various decisions within the corporate and management domain as such including that of market valuations, cost and availability of finance, dividend payout and ownership structure (La Porta, Lopez-de-Silanes, Shleifer, and Vishny 1999, 2000, 2002).

Various strategies and models have been developed in order to understand the association of the board and performance like Hermalin and Weisbach (1998) developed a model that can be utilized to ascertain the fluctuation of the association amid CEO and the board, especially with respect to the independency of the board from that of CEO. Recent studies (Gaur et al. 2015) demonstrates that the presence of internal directors, CEO duality, board size and presence of professional directors leads to better firm performance. However, the positive effect of board independence, board size and board competence on firm performance decreases in firms that have a high-ownership concentration. They (Gaur et al. 2015) also exhibits, the effectiveness of a particular governance mechanism (such as board members) may depend on the presence or absence of another governance mechanism (such as ownership concentration). Models are also developed in order to study the behavior of the board with respect to various forms of environmental

Inconclusiveness (Boyd (1990)). While the model constructed by Zahra and Pearce (1989), determines the effects of the roles and attributes of the board with respect to the performance of the corporations.

Black (2001), tried to establish the link for the major Russian corporations during the evolutionary scientific phase of such studies that is the association amid the governance and performance, where he concluded a strong positive association between the two variables even though the sample size was not significant. Significant amount of studies have been carried out in the same vein, to ascertain and clarify further this relationship. Ran et al (2015), suggest that supervisors with an accounting or academic background, supervisor compensation, and female supervisors are consistent drivers of improvements in accounting information quality. Francis et al. (2015) demonstrate that companies with directors from academia are associated with higher performance and play an important governance role through their advising and monitoring functions. CEO duality has statistically significant negative impacts on firm performance while, this effect is positively moderated by board independence (Duru et al, 2016). Ararat et al (2015) provide empirical support for the importance of contextual factors in the relationship between diversity and performance along with framework and the compound diversity and board-monitoring indices.

On the grounds being the conclusion not very competent, recently, there has been a surge in the scientific world of interrogating the positive association amid the firm performance and corporate governance. Authors like Core, Guay, and Rusticus (2006) question few of the conclusion by Gompers, Ishii, and Metrick (2003) since the results are drawn upon the technology firms and thus its effect on the unevenness in the prices of the stock. Studies even conclude that the significant above average returns observed by Gompers, Ishii, and Metrick (2003), were due to higher risk for the firms as their ranking for the anti - takeover index was very low signifying the level of governance mechanism (Yen, (2005) and Ferreira and Laux (2007)).

According to Yen (2005), the existing association reported by these authors (Gompers, Ishii, and Metrick (2003)) is being derived due to quantum reported by “penny stocks” and outliers. Many studies also reported of not evidencing any connection amid performance and governance (Pham, Suchard, and Zein (2011), Firth, Rui, and Fung (2002). According to Pham, Suchard, and Zein (2011) superior corporate governance is even related with reduced stock returns in Australia. On the contrary, studies even gives evidence for the negative correlation for example Aman and Nguyen (2008) concludes corporations with lower level of Corporate Governance in Japan drastically exceed in performance with those of better Corporate Governance.

One possible explanation could be the risk factor as the corporations with fragile governance has the higher risk, if curtailed rightly could generate higher returns. Nevertheless, fragile governance or complete failure may degrade the shareholder's interest fundamentally or even complete destruction. As mentioned board being the primary line of defense for shareholders, it is very crucial to observe the fundamental characteristics of corporate governance and its effects of the overall firm performance.

Earlier researchers have clearly outlined the important role played by the boards within the corporate governance of public sector corporations (Berles and Means, 1932). The quality assessment of the boards actually creates a process within the board to capture the very grounds of

Inefficiencies and thus helping them to rectify the same before they turn into disaster. For instance, the assessment may evaluate the risk management initiative taken by the board or ways its handling the information asymmetry for the sake of stakeholder's interest.

Previous studies have claimed about negligible amount of strategic relevance for the board as to managing the organization under the dominating management headset, (Mace, 1971). Meanwhile there are other theories as well that consider the other way around and viewed the boards an utmost important mechanism of strategic decision-making process (Boulton, 1978). Moreover, should work hand in hand along with the management to not only monitor every move of the management but also provide guidance with their expertise and diverse experience (Andrews, 1980). Motivated by theoretical advancements in agency theory (e.g. Hendry, 2002), and coerced by increasing number of corporate excesses such as Satyam Computer's in India, Parmalat in Italy, Enron in US, hence, shareholders, law makers and society in general are rigorously looking for boards to demonstrate leadership and control.

In other words, the boards is being viewed as more being the Leader of the organization rather than the management support like in the past. It may not be the universal practice as one of the director's statement that is reported by Lorsch and MacIver (1989, p. 67) clearly mentioned that, “the thinking through of where the company is going is under emphasized among director’s roles”, where as the more focused area was the compliance. According to Pound, (1995), the understanding of the board as the leadership figure within the corporation do exist even if standing at the evolutionary phase. Nevertheless, there is a change in the perceptions to where new studies (Conger et al., 2001) acknowledge directors being guiding the managers about strategic initiatives.

Drawing on classical agency theory, a direct and positive association exist amid performance of the corporations and the level corporate governance (Jensen & Meckling, 1976). In other words, the better the corporate governance standards within the corporation, the higher its market value should be so as its overall performance. According to Shleifer & Vishny, (1997), the managers tend to focus more towards the project of shareholders interest and less towards personal benefits and interest when supervised efficiently. Other researches claims for the boards to be an important management contributor that helps in the strategic direction of the corporation's (Walsh and Seward, 1990; Finkelstein and Hambrick, 1996).

The agency theory underlines the agency relationship wherein the principle hires the agent, but there also exist the risk sharing amid the two, which may turn into probable interest collision (Eisenhardt, 1989). Agency theory is grounded on the assumption that agents do operate rationally and behave opportunistically and will so maximize their own benefit at the expense of shareholders interest (Eisenhardt, 1989). The board being the primary means for the shareholders to defend their interest, has the major role to mediate and maintain a control over any opportunistic behavior by the Management and provide strategic role on a broader scale (Eisenhardt, 1989; Hill, 1995). The statement of providing strategic direction by the board is based on the assumption that due to better controlling mechanism, curtailing the opportunistic behavior of the management is surpassed (Hill, 1995) and such mechanism could be further utilized for the strategic purposes (Stiles and Taylor, 2001).

According to Finkelstein and Hambrick, (1996), various academic research have been conducted to zero down the overall effects of the board's quality on the corporations performance in the form of board composition, role duality, director's tenure and diverse experience, size of the board, and others as such producing mixed results not specifying a thorough evidence of the linkage. One of the possible explanation for the inconclusive results could be the endogeneity or increased complexity and thus difficult to manage statistically and different methodology to measure the quality of the boards and that of the firm performance.

Table 1 : Country wise ranking in terms of protecting investors

Parameters	India	China	Brazil	Russia	UK
Protecting Investors (rank)	34	98	80	115	10
Extent of Disclosure Index (0 - 10)	7	10	5	6	10
Extent of Director liability index (0 - 10)	4	1	8	2	7
Ease of Shareholder suits index (0 - 10)	8	4	6	6	7
Strength of investor protection index (0 - 10)	6.3	5	4.9	4.7	8

Source: Doing Business 2014, (World Bank)

In a recent report by World Bank named as 'Doing Business 2014', India stood at 34th rank in regards to protecting investors and providing constructive corporate governance. The ranking was based on all the global economy comparing countries globally, surpassing other major emerging economies like Brazil, Russia and China repeatedly over the last 5 years (NSE report, 2014).

Clause 49 of the Listing Agreements is termed as the important benchmark in the development of the corporate governance mechanism in India. The rules mentioned were applicable to companies which has a paid up capital of Rs. 100 million or with a net worth of Rs. 250 million at any time during the past five years on March 31, 2002, and to other listed companies with a paid up capital of over Rs. 30 million on March 31, 2003. The crucial mandatory features of Clause 49 regulations especially that deals with the boards are with respect to composition of the board of directors, the composition and functioning of the audit committee, and reporting on corporate governance as part of the annual report.

Corporate Governance

According to Weimar and Pape, (1999), Corporate Governance is a foundation of institutional, legal and cultural factors influencing the design of control that stakeholders exercise over the management's behavior (Weimer and Pape, 1999). The justification for examining the quality of the board is that the board of directors regulate information disclosure in annual reports consequently, constituents of boards may be important. We try to highlight few of the important corporate governance component used within the index creation for the board quality in the literature review.

Independent Director (Clause 149): With the introduction of clause 149, the notion of Independent Directors (IDs) has been brought in for the first time in the Company law in India, wherein the composition of the board has been of special attention. The clause defines an 'independent' director and further advocates for at least half of the board members, especially if there is role duality between CEO and Chairperson. In the same vein, agency theory encourages the concept of

‘dominating outsiders’ namely, to enhance the board’s independency the outside director must dominate the boards. The Cadbury code also suggests, that ``the board should include nonexecutive directors of sufficient caliber and number for their views to carry significant weight in the board's decisions".

According to Abdullah, (2004), in order to control the activity and decision making process of the management, the board of director is very crucial and so is its independency. Previous literatures have found positive relationship amid the performance and the independency of the board (Weir at al, 2002), Mura (2007) and Knyazeva et al., 2013). Moreover, Dehaene et al. (2001) along with Dahya and McConnell (2003) established a significant positive relationship for the Belgian companies amid the independent directors and return on equity.

On the contrary, the Stewardship theory argues the control to be in the hands of managers and suppress any needs for monitoring the management. It is based on the assumption of the presence of the social and business collaboration amid the top management and the Board of directors which promotes and encourages collaborative and strategic (Westphal, 1999; Dalton and Daily, 1999b). According to Black and Bhagat, (1999), firms with mostly outside directors is worst off in terms of performance along with no difference amid the firms having greater inside director or outside director, at least no evidence of improved performance by higher outside director representation. Many previous literatures have demonstrated a negative association amid the performance and the independency of the board (Bhagat and Black, 2002, Adams and Ferreira, 2009, and Carter et al, 2010).

A significant number of previous literatures that explores this relationship of performance and Independency of board reports little consistency in their findings (Dalton et al, 1998), or any direct association (Shivdasani and Zenner, 2002). In their research, Wagner, Stimpert and Fubara (1998) carried an empirical research in order to review the relation amid board composition and firm performances reported inconsistent result. Among the reasons for the inconsistencies, endogeniety that arises from the joint determination and firm value remains on top position (Hermalin and Weisbach, 2003), followed by other reasons like CEO influence over the composition of the board especially, in terms of selecting the outside director (Mace, 1986).

Role duality: An important monitoring component drawn upon agency theory implications is separating the role of Chairman and the CEO of the firm (Rechner and Dalton, 1991). Previous literature have argued on a person managing two crucial positions may lead to tendency of pursuing personal goals at the cost of organizations interest (Jensen and Meckling, 1976). In the same vein, Zubaidah et al, (2009) argued about the crucial question of “who monitors management”. In other words “who will watch the watchers?" where the CEO even has the possibility to set the board’s agenda and can directly impact (if not control) the selection of the Board of Directors. The role duality can be detrimental for the board’s ability to supervise executives (Zubaidah et al., 2009) and will thus even worsen board's independency making even more challenging to control management effectively.

Nevertheless, the empirical investigation with respect to the role duality on performance measures of the firm is not very conclusive. For example, researchers like Coles et al. (2001), Judge, Naoumova and Koutzevol (2003), Ahmadu et al, (2005), Mustafa (2009) and Bhagat and Bolton (2008), and found significant negative relationship between role duality and corporate performance. On the contrary, Wan and Ong (2005), Schmid and Zimmermann (2008) found no significant association.

Board Size: Size of the board refers to the number of directors on the board. According to Cheng (2008) larger boards are not very efficient and are deemed to be slower in decision-making, along with the threat of CEO dominating the board and having increased power in decision-making process (Jensen, 1993). Researchers also argued that larger boards are detrimental to effective

monitoring of the management (Lipton and Lorsch, 1992) and thus advocated for smaller boards for quality monitoring (Jensen, 1993).

The Indian companies' act 2013 in its clause 166 for Board of Directors states that the company can have a maximum of 15 directors on the Board; however, appointing more than 15 directors will require shareholder approval. Analysis of the empirical investigation between the corporate performance and board size is not consistent. Researchers as if Bhagat and Black (2002), Beiner et al. (2004) demonstrated no significant association amid the firm performance and the board size, whereas, Ahmadu et al. (2005), Mustafa (2009) and Chan and Li (2008), found the association with detrimental performance while others even report a negative association (Yermack, 1996).

Board Committees: The 2013 Act mandates the corporates to setup the Nomination and Remuneration Committee that describes the parameters for selecting directors, and provide further guidelines towards the remuneration for the directors, Key Managerial Personnel ("KMP") and other important employees alike. These committees must have at least three or more non-executive directors and one-half of the members must be Independent directors. Moreover, the act advocates for the ability to read and understand the financial statements for majority of the Audit committee members including its Chairperson and thus specifying even the academic and professional qualifications. Previous literatures, have argued for the audit quality to be a crucial aspect of Corporate governance (Defond and Francis, 2005, Fan and Wong, 2005) while its size is another important concept for its effectiveness (Cadbury Committee, 1992). Audit committee has been reported to control the internal mechanism and providing accurate information to shareholders (Anderson et al. (2004), thus strengthening the auditing function and better assessing risk (Hsu, 2007). Profitability moderates the association between audit committee independence and earnings management signifying independent audit committees are more effective monitors of earnings management in profitable firms than in non-profitable firms (Kapoor, & Goel, (2017).

Directors Biography: Previous researches have argued that there exist an implicit association amid boards of directors and corporate performance for example, Jensen, (1993) wherein, he argues that "(t)he board, at the apex of the internal control system, has the final responsibility for the functioning of the firm." In their research, Coles et al, (2008) demonstrated that corporates are more aligned with the internal advice thus benefiting from insider representation on the board, underlining the importance of the firm knowledge and industry specifics. Various analysis in the past has confirmed the director's reputation effect on their human capital (Gilson, 1990, Li 1997, Ferris et al, 2003, and Keys and Li 2005)

With the analysis of this review, it is very much evident that the board by fulfilling its fiduciary duties is a very crucial part of the control mechanism towards controlling and directing the firm (Abdullah, 2004). However, also it is evident that the empirical investigation has not revealed a very conclusive reporting amid the association between corporate performance and board quality. At one part, studies find little to no evidence to suggest that board characteristics affect firm performance (Dalton, et al. 1998, and Weir et al. 2002). On the contrary, researches have timely demonstrated the positive association amid the Corporate Performance and essential qualities of the Board (Bhagat & Black, 1999; Kiel & Nicholson, 2003; Bonn, 2004).

Considering the analysis, it is quite apparent there are mixed result and are not very conclusive from the past researches, which attempt to explore the association amid the performances of the firm and the structure and quality of the board. This could be partly explained by the vulnerability to calculate the firm performance or the quality of the board or both, or as argued by Rediker and Seth, (1995) about the internal control mechanism to be actually "substitutes" and not to be used all at once. Past literatures using wide categories of various performance measures and the corporate governance variables in the form of board characteristics disclosed an inconsistent and paradoxical conclusion.

One of the intention of this paper is to pursuit and improve the measures of corporate governance in the form of board quality and the performance of the companies. Specifically, empirically establishing the core of the board practices vis a vis its effect on the performance of the firm and further elaborating the performance measure that considers the shareholder's value creation and its robust association with the quality of the board. Implying from these inferences, we thus hypothesize that: *ceteris paribus,* the quality of the board is positively related with the performance of the firm.

Market based measures

Along with the traditional accounting measure, in this study, we also attempt to establish a link amid the quality of the Board and the company performance in the form of market based measure. One such measure is the Economic value added (EVA), which is developed and registered by Stern Stewart & Company. According to Grant (2003), EVA is a measure that is described upon residual incomes of corporations and is more reliable and complete than the traditional accounting measures (Adjouad et al, 2007), considering the accounting measures does not imply the cost of equity, but focuses solely on the cost of debt.

Consequently, technically EVA computes the difference between the net profit after taxes and the total cost of the capital employed. Moreover, it also adjust the operating profit for various accounting policies in the form amortization and other such financial obligations.

According to Brewer et al, (1999) EVA focuses on the financial performance based on the after tax net operating income and the investment in assets required to generate this income along with the cost of investment. It is not surprising, to see many studies based on company performance that includes the EVA as their performance measure for instance, Coles et al. (2001) empirically tested 144 US corporations from 1984 to 1988 to determine the fluctuations in EVA and MVA due to corporate governance variables. EVA has also been established as an intertwined measure with that of the market adjusted annual returns than Earning and cash flow from operations (Feltham et al, 2004). While, its superiority over the accounting measures is also being confirmed particularly within the context of describing the shareholders wealth (Elali, 2006).

The EVA is calculated as:

EVA = Net income to common shares after taxes - (Cost of Equity) $*$ Common equity

Wherein the Common equity = is equal to value of common stock + surplus capital + retained earnings.

We also introduce Market value added (MVA) in the analysis in the form of Market based performance measures. According to Shawn (1994), MVA is one of the most crucial form of measurement that verifies the value creation process of the companies, and is being confirmed by researcher's alike (John et al, 2000). The MVA is calculated as:

MVA = Market value of shares outstanding - Common equity.

In order to calculate the Cost of equity we used the Capital asset pricing model as follows:

Cost of Equity = Rf + (Rm − Rf) $*$ Beta

Wherein, we used Government Bonds for risk free return (Rf) and BSE S&P 500 for determining the market benchmark (Rm). While, the Beta was calculated manually for all the 150 companies by

downloading the prices of the stocks from the BSE website, on everyday basis for the period of the financial year 2011-12.

The individual beta was calculated using the formula:

$$\text{Beta of stock n} = \frac{\text{Cov(Pn,Pm)}}{\text{Var (Pm)}}$$

Where in, Pn refers to prices of the stocks and Pm refers to the prices of the market benchmark. All the data are obtained directly either from the annual reports or through the Ace tech database.

CFROTA

In this study, we add another company performance measures focusing financial performance, which attempts to calculate the efficiency of the boards, and the leaders involved in effectively utilizing the resources at their disposal, and signifying their overall quality. Initially, introduced by Dulewicz and Herbert (2004), designated as Cash Flow Return on Total Assets (CFROTA).

According to Dulewicz and Herbert (2004), the ratio excels in various ways compared to other such measures like, providing a close approximation of the actual company's cash flow by evading the impact of Depreciation, amortization and goodwill. The measure also represents the total resource allocation at the disposal of the company financed by the shareholders. Measuring the inflow of Cash vis a vis these assets allows to underline the efficiency of its leaders.

CFROTA (per cent) is therefore defined as:

$$\frac{\text{Operating Profit Before Interest, Taxation, Depreciation and Amortisation}}{\text{Total Assets (Fixed [Tangible and Intangible] plus Current)}} \times 100$$

All the CFROTA data was calculated using the annual reports for the year 2011-12 for the sample companies used in the study.

3. Methodology

This study examines Performance measures in the corporate annual reports of Indian companies fully listed on NSE (National stock exchange) for the financial year 2011 -12. Firms were selected based on the market capitalization as in most of the previous studies (Mcfarland, 2002; Adjouad et al, 2008), wherein originally 249 firms were grouped. Which was further reduced to 150 due insufficient data availability; all the accounting and market related measure were calculated from the annual reports or were directly obtained by the ace tech database.

The index creation is developed by the authors in lieu with the previous researches and is inspired by the index used by Mcfarland (2002) in the Globe and Mail Ratings of Business reports. The study utilizes the self created index in order to rank them as per their quality of the board. The self-Created index utilizes the four major characteristics of the board Quality in the form of Board Composition, Disclosure Practices, Shareholder rights, Shareholder Compensation. The data for each of these variables that comprises 21 elements representing all the four Broad qualities for the board is being collected manually from the Annual reports of the Organization under investigation for the year 2011-12.

The scores pertaining to each of these qualities were further divided by elements belonging to these subcategories. A content analyses technique was utilized in order to identify presence of the component and its quality for the organization and a score were allotted accordingly. In the index all the items used were assigned a fixed score (see appendix) and the prorated score allotted for the individual companies were then added up to arrive the final score.

Although, the index is completely self developed but is inspired by the previous studies and the variables that has been considered important within these studies (Adjaouad et al 2007). Lastly, the index was also prepared considering Indian companies explaining the series of modifications attempted to keep it aligned with the sample companies. In addition, is allotted a specific score to reach the final score of the overall board quality (See appendix). The scores for each company within the sample is further computed by the information through its annual reports.

Control Variables

Firms with larger resources are more inclined to provide the security with the help of constructive governance mechanism resulting further value creation for the shareholders. Thus expecting a positive association amid the governance practices, we include the proxy for the size of the infirm in the form of total assets in line with the previous studies (Black et al, 2003). Companies having a reputation of being listed in popular indices indicates its overall efficiency with respect to the shareholder security and thus the governance practices as well. Having considered this, we add another control variable of NIFTY 50, which is the name of a very important market benchmark termed in India by NSE (National stock Exchange).

Being listed in a NIFTY50 list, which comprises only 50 companies of all the listed firms, is considered a hallmark of quality including of its governance practices giving the value of 1 or 0 otherwise, thus implying positive effect. In order not to have an effect of sector specific firms, we also add sector specific control variable especially the financial sectors name financial dummy to wean out such effects on the performance parameters. So if the firm belongs to the financial sector it is coded as 1 or 0 otherwise. Following previous literature (Adjouad et al, 2007), we also add the leverage position of the firm in the form of debt equity ratio implying the higher ratio will foster higher governance mechanism.

Regression diagnostics

Various univariate and multivariate regression analysis is used to examine the relationship between the performance parameters and the various board characteristics along with the control variables. In order, to wean out any multi-collinearity issues the correlations between independent variables were reviewed, in addition, various inflation factors were computed for each of them. Moreover, normality test were conducted based on skewness and kurtosis and the data was transformed when normality was a problem. In order, to test for homoscedasticity, linearity and normality assumptions, plots of studentised residuals of the predicted values along with the with Q-Q plot and analysis of residuals were conducted.

Correlations

Table 2A presents the correlation for the dependent and independent variables in the form of both Performance parameters of accounting and market based values with the various qualities of Board characteristics and control variables. It is evident from the correlation table, that all the performance parameters with the exception of Return on Equity are significant with at least two of the

Independent variables examined. The correlation table also reveals all the independent variable associations are below 0.60. Whereas, the VIFs for each independent variable (shown in Table 2B) are all less than 3.0, suggesting that multi-collinearity is not a problem. It can also be seen that the total score of the board quality is significantly associated with all the performance parameters with the exception of Return on Equity and Earning per share. Individual analysis of the Board Quality with the performance parameters reveals the market-based parameters are highly associated with Board Quality individual scores, compared to that of the traditional accounting measures.

Among the traditional accounting Tobin's Q shows significant relation with most of the independent variables, while among the controls Leverage is the most common variable for majority of the parameters significant negatively both at 1% and 5%. While among the individual quality Board composition followed by Shareholding compensation is closely followed to be significant with most of the parameters at both 1% and 5%.

3. Results

Descriptive statistics of each measure of Board quality scores, at both overall and subcategory levels, for the sample companies are shown in Table 1. The mean total score for the sample companies is 74.78, while for Board composition and Disclosure practices the mean stood at 38.77 and 19.61 respectively. The mean score for the Shareholding compensation and Shareholders rights is 3.48 and 12.91 respectively.

With the Total, score ranging from 46 to 92, the Board composition and Disclosure scores ranges between 24 to 46 and 3 to 20 respectively. While the Shareholding Compensation and the Shareholders rights varied between 0 to 6 and 0 to 20 respectively. The total score for the Board quality had a median score of 77.50 with the standard deviation of 13.13 and mean of 74.78 representing the sample having an above average approach within these companies with respect to their Board of director's efficiency. With the major contributor towards this score is the Board composition with the mean of 38.77 and the median of 40 with the standard deviation of 5.390 clearly demonstrating the importance of this characteristic for the importance of an efficient board. Closely followed by the disclosure practices of the board having a mean of 19.61 and the median of 20 along with standard deviation of 2.402.

Shareholding rights has the median of 20 and the standard deviation of 8.155. Shareholding compensation is not very prevalent among the Indian companies for their directors comparing with those of the developed countries practices, as it is also evident from the descriptive, having mean score of 3.487 with the median and standard deviation of 2.50 and 2.587 respectively. Regression

Table 3 represents univariate Regression result for the all the parameters individually tested with the total score of the board quality and excluding the control variables. The regression was performed using the equation Performance Parameter = $a + b_1$(Total score). The table demonstrates the strong relationship amid the efficient board qualities and the performance parameters under analysis. With the exception of return on equity (ROE) and Earning per share (EPS), the efficiency of board is significantly associated with all the performance parameters. With the exception of Market value added all the parameters are significant at 1% while the MVA stood at below 5%. Apart from Tobin's Q, all the parameters are positively associated with the efficiency of the board. While, Tobin's Q is negatively associated at 1%.

Table 4 represents the multivariate regression analysis for the all the parameters individually tested with the individual scores of the board quality and excluding the control variables using the equation Performance Parameter = $a + b_1$(Board Composition) + b_2(Shareholding Compensation) +

b_3 (Disclosure) + b_4 (Shareholder rights). With the exception of ROE and EPS all, the parameters are significant with at least one of the board characteristics in the analysis both at 1% and at 5% respectively. Consistent with the previous regression Tobin's Q is negatively associated with all the characteristics of the Board's efficiency. In addition, we found the Market value added is negatively associated with the disclosure practices of the board's quality and is significant at 5%. This regression analysis continues to exhibit the importance of the total scores on explaining the performances even with the addition of control variables in the regression.

In the Table 5 the regression analysis attempts to analyze the parameters tested individually with the total score of Boards Quality all the control variables using the equation Performance Parameter = a + b_1 (Total Score) + b_2 (Size) + b_3 (Leverage) + b_4 (NIFTY 50) + b_5 (Financial Dummy). In this regression, analysis while including the controls, Earning per share has shown to be significant along with other parameters with the total quality score. On the contrary to its original relation in the previous regressions, although it exhibited negative association with the control variable of leverage at 1% level.

While ROE continues to be insignificant, Tobin's Q as expected is negatively associated with the total score. Among the accounting parameters, leverage is the most popular control variable, which is significant. While, among the market based financial dummy is the mostly significant. Size seemed significant with Tobin's Q and EVA, and the inclusion in the NIFTY50 list is significantly associated with MSR, TQ and MVA clearly signifying its impact in the financial market. Although, size and leverage is negatively associated with the EVA at 1% and 5% level respectively, and CFROTA with financial dummy at 1% level is linked negatively.

Table 6 presents the multivariate analysis that attempts to verify the linkages amid the individual performance parameters with the individual board quality characteristics along with the control variables. The regression was carried using the equation Table 6: Regression Table of each performance parameter with the individual score of Boards Quality and the control variables. Performance Parameter = a + b_1 (Board Composition) + b_2 (Shareholding Compensation) + b_3 (Disclosure) + b_4 (Shareholder rights) + b_5 (Size) + b_6 (Leverage) + b_7 (NIFTY 50) + b_8 (Financial Dummy). The regression shows just like in previous regressions so far that the explanatory power of market-based parameters is far better than compared to that of the accounting parameters, thus implying that the accounting parameters are also influenced by the other factors apart from the governance factors.

It can be implied based on the regression analysis, that the market is very receptive in the effects of governance practices followed by the companies. Among the individual characteristics, shareholding compensation (SHC) and the shareholders rights (SHR) is mostly significant with most of the dependent variables. While, leverage (LVG) and financial dummy (FD) among the controls demonstrates major linkage amid the performance parameters. MVA is negatively associated with the disclosure quality at 5% level. Among the controls, leverage is negatively associated at 5% level with EPS, MSR and EVA. While among the market based parameters EVA is negatively associated with the size at 1% level. While CFROTA is negatively associated with the financial dummy at 5% level in line with previous findings. The other instrumental variables have coefficient with expected signs.

4. Summary and Conclusion

In this paper, we attempt to establish the connection amid the various performance parameters broadly classified into accounting measures and market based measures, and the governance practices in the form of Board's quality. The analysis of this extensive study of the top Indian

publicly listed companies updates the current debate about corporate governance and its implication towards performance measures. For the purpose, we used a self-developed index to measure the quality of the board with the sub categories in the form of Board composition, shareholding compensation, Shareholder rights and disclosure practices with respect to governance. For the independent variables, we used both the accounting measure in the form of ROE, EPS, PBV, MSR, Tobin's Q and the market based measure in the form EVA, MVA and CFROTA along with the control variables of Size, leverage, inclusion in NIFTY50 list and the financial dummy (FD).

Taking implications from the agency theory, the quality of the board is supposed to be an important aspect in governing the corporate to support shareholders interest. Previous research has studied various aspect of the board and its overall quality with that of the firm performance with inconclusive results, while this research confirms positive association amid the governance practices and performances with more robust result for the market based measures.

The mean total score for the board's quality remaining at 74.78 with the median being 77.50 clearly indicates the efficiency of the governance practices in India, reinforcing the idea that the corporate governance practices in India does provides an encouraging atmosphere for the investors. While also underlying the fact that the practice of governance still not very similar to that of its western counterparts, for example shareholding compensation is still not the general practice is clearly demonstrated by the descriptive statistics.

The regression clearly demonstrated the association amid the governance practices and the overall performance measures. Nevertheless, the very core of the research to identify the primary base (accounting or market based) of measure, which is having a direct association with the governance practices, is also established. The governance practices showed association with only 40% of the accounting performance measures, while it has showed direct association with 100% of the market based performance measurement. Moreover, the power to explain the regression is very well positioned for the market-based measures compared to that of the accounting based measures. Within the accounting measures, the negative association amid the governance practices and the Tobin's Q is consistent with the previous studies (Kiel and Nicholson, 2003).

Surprisingly, among the control variables the size of the firm proxy by the total assets of the firm do not have very encouraging relation with the performances. A result that could be attributed partially to the simple mathematics of using larger denominator, implying the necessity of greater profit through the numerators for return. Thus, contributing to our understanding that the companies that desire to achieve greater strong profitability in an accounting sense must have larger revenues on a lower asset base.

Drawing on agency theory literature, this paper contributes in several ways towards the studies pertaining to corporate governance and more specifically its link towards the firm performances. The paper provides the self-developed board quality index for top line publicly listed Indian companies, an approach or benchmark that can be used for all the future researches pertaining to Indian corporate governance analysis. This is the first paper on Indian companies that establishes the link amid the performance measures and the Board quality for both accounting and market based value measures. While the variable of liquid performance in the form of CFROTA, along with its counterpart EVA and MVA is tested for the first time. The derived result do make an inferences with respect to the market based measures vis a vis the governance practices seemed more crucial and practical compared to accounting measures at least from the shareholders point of view.

Another important implication of this study is that it provides the board quality specifically its composition emerges to be an important from stock market perception rather than the accounting based performances, a finding reinforced despite the addition of the control variables. A finding consistent with the previous literatures (Kiel and Nicholson, 2003, Adjoaud et al, 2007) although in advanced manner with respect to its scope and variability. In addition, in this paper it differentiates for the fact that accounting measures still go long way with the market-based measures to support the governance practices a thread wasn't evidenced in the past analysis that combines both the form (Adjoaud et al, 2007).

The research could be further improved in number of ways, since this study implies only one-year data of the financial year 2011-12 as with the previous researches (Larcker et al., 2004; Ashbaugh et al., 2004 and Adjouad et al, 2007). The future studies could increase the scope of the data for a larger number of years and thus be able to generalize the conclusions. Secondly, the index created could also be developed further in terms of additional subcategories and tested on larger sample sizes. Nevertheless, this paper provides suggestions to help and guide the future research. Considering its direct demonstration towards evolutionary yet interesting link amid the research of Corporate Governance.

Refernces

Adams, Renée B., and Daniel Ferreira. "Women in the boardroom and their impact on governance and performance." Journal of financial economics 94.2 (2009): 291-309.

Adjaoud, Fodil, Daniel Zeghal, and Syed Andaleeb. "The effect of board's quality on performance: A study of Canadian firms." Corporate Governance: An International Review 15.4 (2007): 623-635.

Ahmadu, S., Aminu, M., Taker, G. (2005), Corporate governance mechanisms and firm financial performance in Nigeria. African economic research consortium Research, 149, 173-202.

Aman, Hiroyuki, and Pascal Nguyen. "Do stock prices reflect the corporate governance quality of Japanese firms?." Journal of the Japanese and International Economies 22.4 (2008): 647-662.

Anderson, R., Mansi, S., Reeb, D. (2004), Board characteristics, accounting report integrity, and the cost of debt. Journal of Accounting and Economics, 37(3), 315-342.

Andrews, K. 1980. The Concept of Corporate Strategy. Homewood, IL: Richard D. Irwin. Astley, W.G. and Van de Ven, A.H. 1983. Central perspectives and debates in organizatianal theory. Administrative Science Quarterly 28:245-273.

Ararat, M., Aksu, M., & Tansel Cetin, A. (2015). How board diversity affects firm performance in emerging markets: Evidence on channels in controlled firms. *Corporate Governance: An International Review*, *23* (2), 83-103.

Ashbaugh, H., Collins, D. W. and Lafond, R. (2004) The Effects of Corporate Governance in Firms' Credit Ratings. Working Paper, University of Iowa.

Beasley, M., Carcello, J., Hermanson, D., Lapides, P. (2000), fraudulent financial reporting: Consideration of industry traits and corporate governance mechanisms. Accounting Horizons, 14(4), 441-454.

Beiner, S., Drobetz,W., Schmid, F., Zimmermann, H. (2004), Is board size an independent corporate governance mechanism? Kyklos, 57(3), 327-356

Beiner, Stefan, et al. "An integrated framework of corporate governance and firm valuation." *European Financial Management* 12.2 (2006): 249-283.

Benjamin Hermalin and Michael Weisbach, (2003), Boards of directors as an endogenously determined institution: a survey of the economic literature, Economic Policy Review, (Apr), 7-26

Berles, Adolf, and Gardiner C. Means. "The modern corporation and private property." New York: World (1932).

Bhagat, R. S., Kedia, B. L., Harveston, P. D., & Triandis, H. C. (2002). Cultural variations in the cross-border transfer of organizational knowledge: An integrative framework. Academy of management review, 27(2), 204-221.

Bhagat, S. and Black, B. (2000) Indépendance du conseil d'administration et performance corporative, *Gouvernance Revue Internationale*, 1, 68–95.

Bhagat, S., Black, B. (2002), The non-correlation between board independence and long-term firm performance. Journal of Corporation Law, 27(2), 231-274.

Bhagat, S., Black, B. (2002), The non-correlation between board independence and long-term firm performance. Journal of Corporation Law, 27(2), 231-274.

Bhagat, S., Bolton, B. (2008), Corporate governance and firm performance, Journal of Corporate Finance, 14, 257-273.

Bhagat, Sanjai, and Bernard Black. "The uncertain relationship between board composition and firm performance." The Business Lawyer (1999): 921-963.

Bhagat, Sanjai, and Bernard Black. "The uncertain relationship between board composition and firm performance." The Business Lawyer (1999): 921-963.

Black, B., Jang, H. and Kim, W. (2003) Does Corporate Governance Affect Firm Value? Evidence from Korea. Working Paper, Stanford Law School J.M. Olin Program in Law and Economics.

Black, Bernard S., Hasung Jang, and Woochan Kim. "Does corporate governance predict firms' market values? Evidence from Korea." The Journal of Law, Economics, and Organization 22.2 (2006): 366-413.

Black, Bernard S., Inessa Love, and Andrei Rachinsky. "Corporate governance indices and firms' market values: Time series evidence from Russia." Emerging Markets Review 7.4 (2006): 361-379.
Black, Bernard. "The corporate governance behavior and market value of Russian firms." Emerging markets review 2.2 (2001): 89-108.
Bonn, Ingrid. "Board structure and firm performance: Evidence from Australia." Journal of Management & Organization 10.1 (2004): 14-24.
Boulton, William R. "The evolving board: A look at the board's changing roles and information needs." Academy of Management Review 3.4 (1978): 827-836.
Boyd, B. K. (1995) CEO Duality and Firm Performance: A Contingency Model, *Strategic Management Journal*, 16, 301–312.
Boyd, Brian. "Corporate linkages and organizational environment: A test of the resource dependence model." Strategic Management Journal 11.6 (1990): 419-430.
Brewer, P. C., Chandra, G., & Hock, C. A. (1999). Economic value added (EVA): Its uses and limitations. SAM Advanced Management Journal, 64(2), 4.
Cadbury Committee (1992), The Financial Aspects of Corporate Governance. Retrieved September 13, 2012, from http://www.ecgi.org/codes/documents/cadbury.pdf
Cadbury, A. (1992) *Final Report of the Committee on the Financial Aspects of Corporate Governance*. London: Gee.
Carter, David A., et al. "The gender and ethnic diversity of US boards and board committees and firm financial performance." Corporate Governance: An International Review 18.5 (2010): 396-414.
Chakraborty, Sumit, and Sushil K. Sharma. "Prediction of corporate financial health by artificial neural network." International Journal of Electronic Finance 1.4 (2007): 442-459.
Chan, K.C., Li, J. (2008), Audit Committee and Firm Value: Evidence on Outside Top Executives as Expert Independent Directors. Corporate Governance: An International Review, 16(1), 16-31.
Cheng, Shijun, John H. Evans, and Nandu J. Nagarajan. "Board size and firm performance: the moderating effects of the market for corporate control." Review of Quantitative Finance and Accounting 31.2 (2008): 121-145.
Cheng, Shijun. "Board size and the variability of corporate performance." Journal of financial economics 87.1 (2008): 157-176.
Coles, J., McWilliams, V., Sen, N. (2001), An examination of the relationship of governance mechanisms to performance. Journal of Management, 27(1), 23 -50.
Coles, Jeffrey L., Naveen D. Daniel, and Lalitha Naveen. "Boards: Does one size fit all?." Journal of financial economics 87.2 (2008): 329-356.
Conger, Jay A., and Edward Lawler III. "Building a high-performing board: how to choose the right members." London Business School Review 12.3 (2001): 11-19.
Core, John E., Wayne R. Guay, and Tjomme O. Rusticus. "Does weak governance cause weak stock returns? An examination of firm operating performance and investors' expectations." The Journal of Finance 61.2 (2006): 655-687.
Dahya J. & McConnell J.J. 2003. Outside Directors and Corporate Board Decisions, Journal of Corporate Finance,Article in Press, Corrected Proof
Daily, Catherine M., Dan R. Dalton, and Albert A. Cannella. "Corporate governance: Decades of dialogue and data." Academy of management review 28.3 (2003): 371-382.
Dalton, D. R., and C. M. Daily. "What's wrong with having friends on the board?." Across the board 36.3 (1999): 28-32. Dalton, D. R., Daily, C. M., Ellstrand, A. E. and Johnson, J. L. (1998) Meta-analytic Reviews of Board Composition, Leadership Structure, and Financial Performance, *Strategic Management Journal*, 19, 269–290.
DeFond, Mark L., and Jere R. Francis. "Audit research after sarbanes-oxley." Auditing: A Journal of Practice & Theory 24.s-1 (2005): 5-30.
Dehaene, A., De Vuyst, V., Ooghe, H. (2001), Corporate Performance and Board Structure in Belgian Companies. Long Range Planning, 34(3), 383-398.
Denis, Diane K. "Twenty-five years of corporate governance research… and counting." Review of financial economics 10.3 (2001): 191-212.
Denis, Diane K., and John J. McConnell. "International corporate governance." Journal of financial and quantitative analysis 38.1 (2003): 1-36.
Dulewicz, Victor, and Peter Herbert. "Does the composition and practice of boards of directors bear any relationship to the performance of their companies?." Corporate Governance: An International Review 12.3 (2004): 263-280.
Duru, A., Iyengar, R. J., & Zampelli, E. M. (2016). The dynamic relationship between CEO duality and firm performance: The moderating role of board independence. *Journal of Business Research*, *69*(10), 4269-4277.
Eisenberg T., Sundgren S. & Wells, M. 1998. Larger board size and decreasing firm value in small firms. Journal of Financial Economics 48(3): 35–54.
Eisenhardt, Kathleen M. "Agency theory: An assessment and review." Academy of management review 14.1 (1989): 57-74. Elali, W. (2006) Contemporaneous Relationship between EVA and Shareholder Value, *International Journal of Business Governance and Ethics*, 2, 237–253.
Fama, E. F (1980)Agency Problems and the Theory of the Firm, *Journal of Political Economy*, 88, 288–307. Feltham, G. D., Isaac, Fan, Joseph PH, and Tak Jun Wong. "Do external auditors perform a corporate governance role in emerging markets? Evidence from East Asia." Journal of accounting research 43.1 (2005): 35-72.
Feltham, Glenn D., et al. "Perhaps EVA does beat earnings—revisiting previous evidence." Journal of Applied Corporate Finance 16.1 (2004): 83-88.
Ferreira, Miguel A., and Paul A. Laux. "Corporate governance, idiosyncratic risk, and information flow." The Journal of Finance 62.2 (2007): 951-989.
Ferris, Stephen P., Murali Jagannathan, and Adam C. Pritchard. "Too busy to mind the business? Monitoring by directors with multiple board appointments." The Journal of finance 58.3 (2003): 1087-1111.
Finkelstein, Sydney, Donald C. Hambrick, and Albert A. Cannella. "Strategic leadership." St. Paul, Minn.: West (1996).
Francis, B., Hasan, I., & Wu, Q. (2015). Professors in the boardroom and their impact on corporate governance and firm performance. *Financial Management*, *44*(3), 547-581.

Gaur, S. S., Bathula, H., & Singh, D. (2015). Ownership concentration, board characteristics and firm performance: a contingency framework. *Management Decision*, *53*(5), 911-931.
Gilson, Stuart C. "Bankruptcy, boards, banks, and blockholders: Evidence on changes in corporate ownership and control when firms default." Journal of Financial Economics 27.2 (1990): 355-387.
Gompers, Paul, Joy Ishii, and Andrew Metrick. "Corporate governance and equity prices." The quarterly journal of economics 118.1 (2003): 107-156.
Grant, L. J.., 2003, Foundation of economic value added, 2nd edn, Frank J. Fabozzi Series, John Wiley & Sons, Inc. Hoboken, New Jersey.
Hendry, John. "The principal's other problems: Honest incompetence and the specification of objectives." Academy of management review 27.1 (2002): 98-113.
Hendry, Kevin, and Geoffrey C. Kiel. "The role of the board in firm strategy: Integrating agency and organisational control perspectives." Corporate Governance: An International Review 12.4 (2004): 500-520.
Henry, Darren. "Corporate governance structure and the valuation of Australian firms: is there value in ticking the boxes?." Journal of Business Finance & Accounting 35.7-8 (2008): 912-942.
Hermalin, Benjamin E., and Michael S. Weisbach. "Endogenously chosen boards of directors and their monitoring of the CEO." American Economic Review (1998): 96-118.
Hill, Stephen. "The social organization of boards of directors." British Journal of Sociology (1995): 245-278.
Jensen, M. C. (1993) The Modern Industrial Revolution Exit, and the Failure of Internal Control Systems, *Journal of Finance*, 48, 831–880.
https://www.nseindia.com/content/us/ismr2012_C.pdf World Bank (2014), "Doing Business"
Jensen, M. C. and Meckling,W. H. (1976) The Theory of the Firm: Managerial Behaviour, Agency Costs and Ownership Structure, *Journal of Financial Economics*, 13, 305–360.
John, C. H. St., N. Balakrishnan, and J. O. Fiet, 2000, Modeling the relationship between corporate strategy and wealth creation using neural networks, Computers & Operations Research 27, 1077–1092.
Johnson, R. B. (1997) The Board of Directors Over Time: Composition and the Organizational Life Cycle, International Journal of Management, 14(3), 339–344.
Johnson, S., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2000). Tunneling. American economic review, 90(2), 22-27. Judge, William Q., Irina Naoumova, and Nadejda Koutzevol. "Corporate governance and firm performance in Russia: an empirical study." Journal of World Business 38.4 (2003): 385-396.
Kapoor, N., & Goel, S. (2017). Board Characteristics, Firm Profitability and Earnings Management: Evidence from India. *Australian Accounting Review*, *27*(2), 180-194.
Kemp, Sharon. "In the driver's seat or rubber stamp? The role of the board in providing strategic guidance in Australian boardrooms." Management Decision 44.1 (2006): 56-73.
Keys, Phyllis Y., and Joanne Li. "Evidence on the market for professional directors." Journal of Financial Research 28.4 (2005): 575-589.
Kiel, Geoffrey C., and Gavin J. Nicholson. "Board composition and corporate performance: How the Australian experience informs contrasting theories of corporate governance." Corporate Governance: An International Review 11.3 (2003): 189-205. Knyazeva, Anzhela, Diana Knyazeva, and Ronald W. Masulis. "The supply of corporate directors and board independence." The Review of Financial Studies 26.6 (2013): 1561-1605.
Kumar, Naveen, and J. P. Singh. "Outside directors, corporate governance and firm performance: Empirical evidence from India." Asian Journal of Finance & Accounting 4.2 (2012): 39.
La Porta, Rafael, et al. "The quality of government." The Journal of Law, Economics, and Organization 15.1 (1999): 222-279.
Larcker, D. F., Richardson, S. A. and Tuna, I. (2004) How Important Is Corporate Governance? Working Paper (Revised version, September 24), The Wharton School, University of Pennsylvania.
Lipton, M. and Lorsch, J. (1992) A Modest Proposal for Improved Corporate Governance, *Business Lawyer*, 48, 59–77.
Lorsch, J. W. MacIver,(1989) Pawns or Potentates: The Reality of America's Corporate Boards. Harvard Business School Press, Boston, MA.
Mace, Myles L. "Directors: Myth and reality-ten years later." Rutgers L. Rev. 32 (1979): 293.
Mace, Myles La Grange. "Directors: Myth and reality." (1986).
McFarland, J. (2002) How ROB Created the Rating System, *The Globe and Mail*, October.
Mura, Roberto. "Firm performance: Do non-executive directors have minds of their own? Evidence from UK panel data." Financial Management 36.3 (2007): 81-112.
Mustafa, H., Daud, Z.M., Muhamad, S. (2009), Corporate governance practices and firms performance: the Malaysian case. Journal of Money, Investment and Banking. 11, 45-59.
Nahar Abdullah, Shamsul. "Board composition, CEO duality and performance among Malaysian listed companies." *Corporate Governance: The international journal of business in society* 4.4 (2004): 47-61.
Nicholson, Gavin J., and Geoffrey C. Kiel. "A framework for diagnosing board effectiveness." Corporate Governance: An International Review 12.4 (2004): 442-460.
Pham, Peter Kien, Jo-Ann Suchard, and Jason Zein. "Corporate governance and alternative performance measures: evidence from Australian firms." Australian Journal of Management 36.3 (2011): 371-386.
Porta, Rafael La, et al. "Law and finance." Journal of political economy 106.6 (1998): 1113-1155.
Porta, Rafael, et al. "Investor protection and corporate valuation." The journal of finance 57.3 (2002): 1147-1170.
Pound, John. "The promise of the governed corporation." Harvard Business Review 73.2 (1995): 89-98.
Ran, G., Fang, Q., Luo, S., & Chan, K. C. (2015). Supervisory board characteristics and accounting information quality: Evidence from China. *International Review of Economics & Finance*, *37*, 18-32.
Rechner, Paula L., and Dan R. Dalton. "CEO duality and organizational performance: A longitudinal analysis." Strategic Management Journal 12.2 (1991): 155-160.
Rediker, K. and Seth, A. (1995) Boards of Directors and Substitution Effects of Alternative Governance Mechanisms, *Strategic Management Journal*, 16, 83–99.

Richards Jr, Charles F., and Robert J. Stearn Jr. "Shareholder by-laws requiring boards of directors to dismantle rights plans are unlikely to survive scrutiny under Delaware law." The Business Lawyer (1999): 607-635.
Romano, Roberta. "Corporate law and corporate governance." Industrial and corporate change 5.2 (1996): 277-340.
Rui, Oliver M., Michael Firth, and Peter MY Fung. "Simultaneous relationships among ownership, corporate governance, and financial performance." (2002).
Sarkar, Jayati, and Subrata Sarkar. "Multiple board appointments and firm performance in emerging economies: Evidence from India." Pacific-Basin Finance Journal 17.2 (2009): 271-293.
Schmid, Markus M., and Heinz Zimmermann. "Should chairman and CEO be separated? Leadership structure and firm performance in Switzerland." Schmalenbach Business Review 60.2 (2008): 182-204. Shawn, T., 1994, America's best wealth creators, Fortuna Magazine 130, 77–91.
Shıvdasanı, A., and M. Zenner. "Best Practices in Corparate Governance." Global Corporate Finance (2002).
Shleifer A., Vishny R. 1997. A survey of corporate governance. Journal of Finance 52:737–775.
Stewart, G. B. (1991) *The Quest for Value*. New York: Harper Business.
Stiles, Philip, and Bernard Taylor. Boards at work: How directors view their roles and responsibilities: How directors view their roles and responsibilities. OUP Oxford, 2001.
Subramanian S. (2006), "Management control and differences in disclosure levels: The Indian Scenario", *The ICFAI Journal of Corporate Governance*, Vol. 5(1), pp. 16-33.
Tirole, J. (2001) Corporate Governance, Econometrica, 69(1), 1–35.
Topalova, Petia. Overview of the indian corporate sector: 1989-2002. No. 4-64. International Monetary Fund, 2004.
Tricker, Robert Ian. Corporate governance: Practices, procedures, and powers in British companies and their boards of directors. Gower Pub Co, 1984.
Useem, Michael. The inner circle. Vol. 617. New York: Oxford University Press, 1984.
Vancil, Richard F. Passing the baton: Managing the process of CEO succession. Boston, MA: Harvard Business School Press, 1987.
Wagner III, John A., J. L. Stimpert, and Edward I. Fubara. "Board composition and organizational performance: Two studies of insider/outsider effects." Journal of Management studies 35.5 (1998): 655-677.
Walsh, James P., and James K. Seward. "On the efficiency of internal and external corporate control mechanisms." Academy of Management review 15.3 (1990): 421-458.
Weimar, J., Pape, J.C. (1999), "A taxonomy of systems of corporate governance", Corporate Governance: An International Review, Vol. 7 No. 2, pp. 152-166.
Weir, C., Laing, D. and McKnight, P. J. (2002) Internal and External Governance Mechanisms: Their Impact on the Performance of Large UK Public Companies, *Journal of Business Finance and Accounting*, 29, 579–611.
Westphal, James D. "Collaboration in the boardroom: Behavioral and performance consequences of CEO-board social ties." Academy of Management Journal 42.1 (1999): 7-24.
William Q. Judge, Naoumova I. & Koutzevol N. 2003. Corporate governance and firm performance in Russia: an empirical study. Journal of World Business 38: 385–396.
Yermack D. 1996. Higher Market Valuation of Companies with a Small Board of Directors. Journal of Financial Economics 40:185-211.
Zahra, Shaker A., and John A. Pearce. "Boards of directors and corporate financial performance: A review and integrative model." Journal of management 15.2 (1989): 291-334.
Zubaidah Z.A., Nurmala M.K. & Kamaruzaman J. 2009. Board structure and corporate performance in Malaysia. International

Statistical Tables

Table 2. Pearson Correlations

	Total	ROE	EPS	PBV	MSR	TQ	EVA	MVA	CFROTA	SIZE	LVG	BCOMP	SHC	DISC	SHR	NIFTY 50
Total	—															
ROE	0.118	—														
EPS	0.142	0.147	—													
PBV	0.378	0.166	0.198	—												
MSR	0.418	0.101	0.065	0.209	—											
TQ	-0.380	-0.040	0.121	-0.027	0.007	—										
EVA	0.453	0.102	0.019	0.184	0.275	-0.201	—									
MVA	0.179	0.092	0.003	0.276	0.456	0.486	0.198	—								
CFROTA	0.509	0.227	0.086	0.346	0.193	-0.144	0.231	0.166	—							
SIZE	-0.413	-0.043	0.042	-0.142	-0.130	0.595	-0.375	0.155	-0.302	—						
LVG	-0.124	-0.021	-0.243	0.119	-0.241	0.119	-0.182	-0.022	-0.227	0.111	—					
BCOMP	0.611	-0.014	-0.061	0.225	0.296	-0.335	0.222	0.076	0.193	-0.400	0.015	—				
SHC	0.726	0.100	0.123	0.297	0.351	-0.241	0.272	0.168	0.466	-0.249	-0.117	0.247	—			
DISC	0.321	0.036	0.110	0.031	-0.011	-0.220	0.167	-0.176	0.186	-0.115	-0.065	0.014	0.113	—		
SHR	0.881	0.157	0.197	0.356	0.370	-0.249	0.448	0.236	0.490	-0.288	-0.153	0.240	0.655	0.177	—	
NIFTY 50	-0.098	-0.129	0.079	0.022	0.111	0.576	-0.164	0.458	0.041	0.292	-0.035	-0.095	-0.067	-0.060	-0.056	—

Note in the correlation the following abbreviations has been employed:

TOTAL - Total score for the board quality, BCOMP - Board composition, SHC - Shareholding compensation, DISC - Disclosure strategy, SHR - Shareholder rights, SIZE- Size of the firm, LVG - Leverage of the firm, NIFTY 50 - If listed under NIFTY 50, CFROTA – Cash flow return on total Assets.

Table 2: Descriptive statistics

	BCOMP	***SHC***	***DISC***	***SHR***	***Total***
Mean	*38.77*	*3.487*	*19.61*	*12.91*	*74.78*
Median	*40.00*	*2.500*	*20.00*	*20.00*	*77.50*
Std. Deviation	*5.390*	*2.587*	*2.402*	*8.155*	*13.13*
Skewness	*-0.8117*	*-0.1919*	*-6.297*	*-0.3892*	*-0.5661*
Kurtosis	*-0.1169*	*-1.743*	*39.04*	*-1.737*	*-0.7465*
Minimum	*24.00*	*0.000*	*3.000*	*0.000*	*46.00*
Maximum	*46.00*	*6.000*	*20.00*	*20.00*	*92.00*

Table 3*: Regression Table of each Performance parameter with the total score of Boards Quality. Calculated using the following equation: Performance Parameter = a + b1 (Total Score).*

Performance Parameter

Parameters		***ROE***			***EPS***			***PBV***			***MSR***	
	Coeff.	*T stat*	*p-value*	*Coeff.*	*T stat*	*p-value*	*Coeff.*	*T stat*	*p-value*	*Coeff.*	*T stat*	*p-value*
Constant	*1.74921*	*19.71*	*< .001*	*0.86797*	*3.58*	*< .001*	*111508*	*19.99*	*< .001*	*-0.9988*	*-4.28*	*< .001*
b1	*0.00169*	*1.45*	*0.150*	*0.00556*	*1.74*	*0.084*	*0.00364*	*4.96*	*< .001*	*0.0172*	*5.60*	*< .001*
R- Square		*0.0139*			*0.0201*			*0.143*			*0.175*	
VIF		*1.14*			*1.25*			*1.43*			*1.54*	

Parameters		***TQ***			***EVA***			***MVA***			***CFROTA***	
	Coeff.	*T stat*	*p-value*	*Coeff.*	*T stat*	*p-value*	*Coeff.*	*T stat*	*p-value*	*Coeff.*	*T stat*	*p-value*
Constant	*5.8560*	*26.51*	*< .001*	*4.13390*	*160.70*	*< .001*	*4.28497*	*29.00*	*< .001*	*0.0810*	*0.535*	*0.594*
b1	*-0.0145*	*-5.00*	*< .001*	*0.00210*	*6.19*	*< .001*	*0.00431*	*2.21*	*0.028*	*0.0144*	*7.202*	*< .001*
R- Square		*0.145*			*0.206*			*0.0320*			*0.260*	
VIF		*2.90*			*1.45*			*2.41*			*1.55*	

Table 4: *Regression Table of each Performance parameter with the individual score of Boards Quality.*
Performance Parameter = a + b1 (Board Composition) + b2 (Shareholding Compensation) + b3 (Disclosure) + b4 (Shareholder rights).

Performance Parameter

Parameters		***ROE***			***EPS***			***PBV***			***MSR***	
	Coeff.	*T stat*	*p-value*	*Coeff.*	*T stat*	*p-value*	*Coeff.*	*T stat*	*p-value*	*Coeff.*	*T stat*	*p-value*
Constant	*1.88898*	*11.1722*	*< .001*	*1.21959*	*2.6712*	*0.008*	*1.22076*	*11.477*	*< .001*	*-0.4926*	*-1.118*	*0.266*
b1	*-0.00193*	*-0.6494*	*0.517*	*-0.01084*	*-13536*	*0.178*	*0.00327*	*1752*	*0.082*	*0.0203*	*2.631*	*0.009*
b2	*1.91e-4*	*0.0241*	*0.981*	*0.00165*	*0.0771*	*0.939*	*0.00438*	*0.878*	*0.381*	*0.0332*	*1.606*	*0.110*
b3	*5.53e-4*	*0.0849*	*0.932*	*0.01587*	*0.9016*	*0.369*	*-0.00148*	*-0.362*	*0.718*	*-0.0162*	*-0.956*	*0.341*
b4	*0.00386*	*1.5215*	*0.130*	*0.01299*	*18953*	*0.060*	*0.00417*	*2612*	*0.010*	*0.0152*	*2.301*	*0.023*
R- Square		*0.0276*			*0.0565*			*0.152*		*0.201*		
VIF		*1.14*			*1.25*			*1.43*			*1.54*	

Parameters		***TQ***			***EVA***			***MVA***			***CFROTA***	
	Coeff.	*T stat*	*p-value*	*Coeff.*	*T stat*	*p-value*	*Coeff.*	*T stat*	*p-value*	*Coeff.*	*T stat*	*p-value*
Constant	*6.72219*	*16.224*	*< .001*	*4.15037*	*85.162*	*< .001*	*5.01932*	*18.417*	*< .001*	*0.38308*	*1.347*	*0.180*
b1	*-0.02695*	*-3.707*	*< .001*	*0.00146*	*1.704*	*0.091*	*7.05e-4*	*0.147*	*0.883*	*0.00411*	*0.823*	*0.412*
b2	*-0.01776*	*-0.913*	*0.363*	*-0.00138*	*-0.602*	*0.548*	*0.00242*	*0.189*	*0.850*	*0.03511*	*2.629*	*0.009*
b3	*-0.03970*	*-2.486*	*0.014*	*0.00237*	*1.262*	*0.209*	*-0.02947*	*-2.806*	*0.006*	*0.01617*	*1.475*	*0.142*
b4	*-0.00533*	*-0.857*	*0.393*	*0.00327*	*4.469*	*< .001*	*0.01008*	*2.463*	*0.015*	*0.01346*	*3.151*	*0.002*
R- Square		*0.182*			*0.225*			*0.105*			*0.291*	
VIF		*2.90*			*1.45*			*2.41*			*1.55*	

***Table 5**: Regression Table of each Performance parameter with the total score of Boards Quality and the control variables. Performance Parameter = a + b1 (Total Score) + b2 (Size) + b3 (Leverage) + b4 (NIFTY 50) + b5 (Financial Dummy).*

Performance Parameters

Parameters	***ROE***			***EPS***			***PBV***			***MSR***		
	Coeff.	*T stat*	*p-value*	*Coeff.*	*T stat*	*p-value*	*Coeff.*	*T stat*	*p-value*	*Coeff.*	*T stat*	*p-value*
Constant	1.75694	16.7837	< .001	0.65660	2.393	0.018	1.10539	17.066	< .001	-1.1691	-4.446	< .001
b1	0.00176	1.3271	0.187	0.00801	2.306	0.023	0.00367	4.471	< .001	0.0189	5.663	< .001
b2	4.88e-8	0.4681	0.640	8.52e-8	0.312	0.756	2.06e-8	0.319	0.750	-2.14e−7	-0.816	0.416
b3	-9.64e−4	-0.1849	0.854	-0.04470	-3.269	0.001	0.00787	2.438	0.016	-0.0392	-2.990	0.003
b4	-0.05602	-1.5259	0.129	0.08200	0.852	0.396	0.01782	0.784	0.434	0.1934	2.097	0.038
b5	-0.00108	-0.0209	0.983	0.26377	1.947	0.053	-0.03455	-1.080	0.282	0.3023	2.328	0.021
R- Square		0.0299			0.113			0.182			0.260	
VIF		1.14			1.25			1.43			1.54	

Parameters	***TQ***			***EVA***			***MVA***			***CFROTA***		
	Coeff.	*T stat*	*p-value*	*Coeff.*	*T stat*	*p-value*	*Coeff.*	*T stat*	*p-value*	*Coeff.*	*T stat*	*p-value*
Constant	4.91611	26.696	< .001	4.15795	145.521	< .001	4.01284	26.421	< .001	0.3636	2.1675	0.032
b1	-0.00518	-2.223	0.028	0.00184	5.088	< .001	0.00664	3.451	< .001	0.0111	5.2323	< .001
b2	8.05e-7	4.388	< .001	-9.97e−8	-3.501	< .001	2.61e-7	1.727	0.086	-4.68e−9	-0.0280	0.978
b3	0.00716	0.780	0.437	-0.00319	-2.237	0.027	0.00198	0.262	0.794	-0.0129	-1.5403	0.126
b4	0.52734	8.165	< .001	-0.00723	-0.721	0.472	0.31417	5.898	< .001	0.0770	1.3089	0.193
b5	0.22961	2.525	0.013	0.04092	2.900	0.004	-0.03060	-0.408	0.684	-0.2785	-3.3626	< .001
R- Square		0.580			0.307			0.277			0.358	
VIF		*2.90*			*1.45*			*2.41*			*1.55*	

***Table 6**: Regression Table of each Performance parameter with the individual score of Boards Quality and the control variables.*
Performance Parameter = a + b1 (Board Composition) + b2 (Shareholding Compensation) + b3 (Disclosure) + b4 (Shareholder rights) + b5 (Size) + b6 (Leverage) + b7 (NIFTY 50) + b8 (Financial Dummy).

Performance Parameters

Parameters		***ROE***			***EPS***			***PBV***			***MSR***	
	Coeff.	*T stat*	*p-value*	*Coeff.*	*T stat*	*p-value*	*Coeff.*	*T stat*	*p-value*	*Coeff.*	*T stat*	*p-value*
Constant	*1.91537*	*10.4317*	*< .001*	*0.95003*	*1.9858*	*0.049*	*1.21981*	*10.723*	*< .001*	*-0.7600*	*-1.671*	*0.097*
b1	*-0.00205*	*-0.6397*	*0.523*	*-0.00574*	*-0.6886*	*0.492*	*0.00289*	*1.457*	*0.147*	*0.0246*	*3.105*	*0.002*
b2	*-8.76e−5*	*-0.0109*	*0.991*	*0.00534*	*0.2552*	*0.799*	*0.00431*	*0.866*	*0.388*	*0.0376*	*1.891*	*0.061*
b3	*1.25e-4*	*0.0190*	*0.985*	*0.01730*	*1.0080*	*0.315*	*-0.00117*	*-0.286*	*0.775*	*-0.0144*	*-0.882*	*0.379*
b4	*0.00394*	*1.5192*	*0.131*	*0.01326*	*1.9600*	*0.052*	*0.00433*	*2.692*	*0.008*	*0.0152*	*2.368*	*0.019*
b5	*1.93e-8*	*0.1798*	*0.858*	*-2.15e−8*	*-0.0769*	*0.939*	*1.41e-8*	*0.212*	*0.833*	*-1.75e−7*	*-0.657*	*0.512*
b6	*-1.20e−4*	*-0.0227*	*0.982*	*-0.04153*	*-3.0228*	*0.003*	*0.00798*	*2.442*	*0.016*	*-0.0411*	*-3.144*	*0.002*
b7	*-0.05564*	*-1.5082*	*0.134*	*0.08717*	*0.9068*	*0.366*	*0.01707*	*0.747*	*0.456*	*0.1873*	*2.049*	*0.042*
b8	*0.00192*	*0.0369*	*0.971*	*0.27463*	*2.0258*	*0.045*	*-0.03320*	*-1.030*	*0.305*	*0.3063*	*2.376*	*0.019*
R- Square		*0.0437*			*0.136*			*0.192*			*0.291*	
VIF		*1.14*			*1.25*			*1.43*			*1.54*	
Parameters		***TQ***			***EVA***			***MVA***			***CFROTA***	
	Coeff.	*T stat*	*p-value*	*Coeff.*	*T stat*	*p-value*	*Coeff.*	*T stat*	*p-value*	*Coeff.*	*T stat*	*p-value*
Constant	*552.427*	*1.731.599*	*< .001*	*419.678*	*84.663*	*< .001*	*462.963*	*18.005*	*< .001*	*0.6696*	*2.310*	*0.022*
b1	*-0.01132*	*-203.426*	*0.044*	*6.74e-4*	*0.779*	*0.437*	*0.00554*	*1.236*	*0.219*	*6.71e-4*	*0.133*	*0.895*
b2	*-0.00654*	*-0.46880*	*0.640*	*-0.00121*	*-0.558*	*0.578*	*0.00505*	*0.449*	*0.654*	*0.0300*	*2.363*	*0.019*
b3	*-0.02712*	*-236.962*	*0.019*	*0.00190*	*1.070*	*0.286*	*-0.02504*	*-2.715*	*0.007*	*0.0133*	*1.283*	*0.202*
b4	*-1.77e−5*	*-0.00392*	*0.997*	*0.00309*	*4.405*	*< .001*	*0.01086*	*2.986*	*0.003*	*0.0103*	*2.501*	*0.014*
b5	*7.56e-7*	*405.899*	*< .001*	*-1.08e−7*	*-3.738*	*< .001*	*2.51e-7*	*1.673*	*0.096*	*-9.04e−8*	*-0.534*	*0.594*
b6	*0.00828*	*0.90367*	*0.368*	*-0.00289*	*-2.028*	*0.044*	*0.00189*	*0.255*	*0.799*	*-0.0108*	*-1.298*	*0.196*
b7	*0.52405*	*817.595*	*< .001*	*-0.00732*	*-0.735*	*0.463*	*0.30746*	*5.952*	*< .001*	*0.0827*	*1.420*	*0.158*
b8	*0.23668*	*261.823*	*0.010*	*0.04094*	*2.915*	*0.004*	*-0.02736*	*-0.376*	*0.708*	*-0.2627*	*-3.199*	*0.002*
R- Square		*0.596*			*0.332*			*0.336*			*0.386*	
VIF		*2.90*			*1.45*			*2.41*			*1.55*	

APPENDIX

Index Creation and Score Allotment

Board Composition		*Shareholding Compensation*		*Disclosure*		*Shareholder Rights*	
Female board Member	*4*	*Directors own stocks*	*6*	*Attendance records*		*Re-election*	
Board Size	*5*	*Directors in option plan*	*3*	*of directors*	*6*	*of directors*	*4*
Independent Directors	*9*	*Loans to director*	*5*	*Multiple Directorship*	*4*	*Stock options dilutive*	*6*
Audit committee	*5*			*Board members*		*Option re-priced,*	
Risk Management Committee	*3*			*biographies*	*4*	*extended, exchanged*	*4*
Compensation Committee	*3*			*Governance practices*	*6*	*Voting shares*	*6*
Nominating Committee	*3*						
Board meeting	*4*						
Number of committee Meetings	*5*						
Role Seperation of CEO and Chairman	*5*						
Maximum score	***46***	***Maximum score***	***14***	***Maximum score***	***20***	***Maximum score***	***20***